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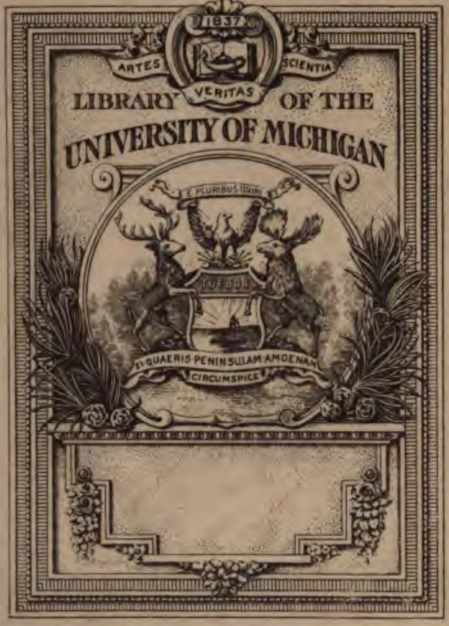
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HAND-BOOK

TO THE

BOROUGH ROAD SCHOOLS;

EXPLANATORY OF THE

METHODS OF INSTRUCTION

ADOPTED BY THE

British and Foreign School Society.

LONDON:
PRINTED FOR THE SOCIETY;
AND SOLD AT THE DEPOSITORY, BOROUGH ROAD;
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AND BY ALL BOOKSELLERS.
1856.

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PREFACE.

In the year 1798, JOSEPH LANCASTER, a private individual, possessed of considerable talents for the instruction of children, perceiving that great numbers of the poorer classes were deprived of this blessing, owing to the expense attendant on the common methods of teaching, began to devise economical plans, which, in the course of years, he so far perfected as to show that one master might conduct a school of several hundred children; and that, while the progress of the pupils in learning was much more rapid on this than on the old method, the annual expense for each child was greatly diminished.

The late DUKE OF BEDFORD and LORD SOMERVILLE were among the first visitors to the school which LANCASTER had founded; and, at an early period, became the friends and patrons of the system. In the year 1805, King George III., ever attentive to the best interests of his people, favoured JOSEPH LANCASTER with an interview; and, having fully informed himself of the nature of the plan, immediately perceived its vast utility and importance, its suitableness to the whole mass of the poor population of the country, and its salutary tendency in regard to morality and religion. It was on this occasion, when expressing his most decided approbation of the measure, that he uttered these words, which posterity will long remember:—"IT IS MY WISH THAT EVERY POOR CHILD IN MY KINGDOM MAY BE TAUGHT TO READ THE BIBLE."

In the year 1808, in consequence of Mr. LANCASTER being involved in pecuniary embarrassments, arising out of the rapid extension of his plans of teaching, it was deemed advisable to place his affairs in the hands of trustees, and to form a Voluntary Society, to carry on the work he had commenced. This was accordingly done, under the title of "The Society for Promoting the Royal British or Lancasterian System for the Education of the Poor." At a meeting held at Freemasons' Tavern on the 10th of November, 1813, under the presidency of His late Royal Highness the Duke of Kent, it was agreed, that in order more fully to set forth its object and character, the Institution should be designated "The Institution for Promoting the British System for the Education of the Labouring and Manufacturing Classes of Society of every Religious Persuasion." This long and somewhat cumbrous title was exchanged the following year for the simple and more comprehensive designation of "THE BRITISH AND FOREIGN SCHOOL SOCIETY;" under which title it has ever since pursued its course.

The OBJECT of the British and Foreign School Society is, THE SCRIPTURAL EDUCATION OF THE CHILDREN OF THE POOR. Its claims are urged upon the Christian public under a deep conviction (founded on incontrovertible evidence) that great multitudes of the children of the labouring classes of England are every year growing up uninstructed, and consequently ignorant of all moral and religious obligations.

The PRINCIPLES of the Society are, in every respect, unsectarian. Popular ignorance is a *national* calamity; the means of instruction must therefore be afforded to all sects and parties in the nation. The introduction of the Sacred Scriptures without note or comment, to the exclusion of the formularies of any particular church, appearing most likely to unite the greatest possible number, that practice has been, from the first, a fundamental rule in all the schools of the Society. At the same time, it must be distinctly understood, that the Society has never, in a single instance, compromised, in any school or schools under its control, or reaping benefit from its funds, any truth of Sacred Scripture, nor has it ever sanctioned the omission of a single text or word of the authorized version to meet the views of any class of objectors.

The PRACTICAL EFFICIENCY of all schools mainly depends on the character and qualifications of the teachers. The selection and training of suitable young persons for that important office has, therefore, always been a primary object of solicitude. With this view the Society maintains Model Schools and Normal Colleges for both sexes.

The MODEL BOYS' SCHOOL numbers nearly 700 children in daily attendance; the Girls' School, 300. Since their establishment *upwards of sixty thousand* children have been received. Here the most improved methods of instruction may be seen in actual operation.

The NORMAL COLLEGES are formed for the purpose of instructing teachers, and are intended to fit them for the right performance of their duties. Since the formation of the Society above three thousand teachers have been selected and trained. The buildings accommodate at least sixty resident candidates, and libraries and lecture-rooms for a much larger number have been provided; so that fifty or sixty more usually lodge and board in the neighbourhood, and attend as out-door pupils.

Teachers (male or female), well acquainted with the most approved methods both of instruction and moral training, may always be obtained, free of cost, on application to the Secretary.

The DEPOSITORY of the Society is well supplied with every kind of material required for Elementary Schools. Lesson Books of the most approved kind, Sheet Lessons, Maps, Slates, Copy Books, and all other requisites, are furnished (for prepayment) at prices far below what they can be obtained for elsewhere. Catalogues are furnished gratuitously on application.

The LOCAL SCHOOLS, although governed by independent local committees, are conducted on the plan and principles of the Society: the Schools in the immediate neighbourhood of London are regularly inspected once in three months, under the direction of the Parent Society, and those in the country receive visits as frequently as practicable: 213 schools, containing 30,582 scholars, are under the supervision of the London Inspector.

Local Committees or Private Individuals establishing schools are furnished with the requisite particulars for accomplishing their object speedily and economically, and grants of material to aid in the formation of new schools are made by the Committee monthly.

The FOREIGN OPERATIONS of the Society have been extensive. Every effort has been made to establish schools in the *Colonies of the British Empire.* In Jamaica and other parts of the West Indies, at Montreal and Quebec, at the Cape of Good Hope, in New South Wales and South Australia, schools have been built, and local societies established. In France and Spain, in the Ionian Islands, as well as in the Morea, in India, and in South America, schools have been established in consequence of the efforts of the Society. The Committee embrace every opportunity for multiplying schools both at home and abroad. They correspond with persons friendly to education in foreign parts. They receive and communicate information, train masters and mistresses at the Central School, and afford every facility to foreigners who wish to promote education in their respective countries.

The Scripture Lessons have, at great expense, been translated and printed in the French, Spanish, Italian, Portuguese, Russian, and Modern Greek Languages. A Manual of the System of Instruction has also been prepared, both for Boys' and Girls' Schools.

To MISSIONARIES, the Society has in various ways afforded important aid, both by instructing them in the system, and by grants of lessons, slates, and school materials; and it wishes to be distinctly recognized as a coadjutor in the Christian duty of conveying the glad tidings of salvation to a fallen world. It has ever been one of its most important objects to co-operate with them in diffusing a knowledge of the blessed truths of the gospel.

Having thus presented a brief view of the progress and successful diffusion of their schools in various parts of the world, the Committee cannot but express anew their conviction of the importance of the work in which they are engaged, as being eminently calculated, under the blessing of an all-wise Providence, to advance the best interests of the human race. In whatever point of view the education of the poor is considered, it presents objects of the highest moment both to themselves and to society at large. The dependent state of the poor peculiarly recommends them to the care and attention of the higher classes. If suffered to grow up in ignorance and vice, a fearful responsibility will lie upon those by whom so serious an evil might have been prevented. The cultivation of the mind by the instruction afforded in these schools opens and expands the faculties, impresses on the heart a deep sense of moral and religious duty, and produces habits of industry, order, and subordination: a fact to which the reports from various schools concur in bearing testimony.

But while the efforts of this Institution have prospered in a most extensive degree, both at home and abroad, the Committee lament to state the inadequacy of their funds to meet the expenditure. Yet the Committee cannot doubt, that if the situation of this Institution were generally known, ample means would be afforded, not only to meet its very moderate expenditure, but also to enable them to promote the instruction of the rising generation in all those parts of the United Kingdom which are still destitute of the means of education.

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CHAPTER I.

FITTINGS AND ORGANIZATION.

SECT. 1.—SCHOOL FITTINGS.

1. The *form of room* best adapted to the working of the British System is that of a parallelogram, its proportion varying according to the extent of its area. At the lower end of the room a raised platform should be erected, from which the master can overlook the operations of the whole school when necessary, and conduct the changes.

Arrangement of space.

The ground space should be divided into three parts; that nearest the platform being left clear for draft work; the next portion fitted with writing desks; and the upper part having a gallery or galleries for collective lessons.

The windows should be in the roof, or elevated at least six feet from the ground. A strip of black board should be fixed on the walls three feet from the ground, and should run up each side of the schoolroom as far as the commencement of the gallery division.

The desks and gallery should be so arranged that, when the pupils are seated, each one may face the platform. Behind the platform a class-room may be erected, fitted with a gallery capable of seating one section of the school, for the purpose of model and trial lessons. This gallery may also be fitted with broad desks, so as to be useful for drawing classes.

Subdivision desirable.

2. If a school be purely monitorial, it is necessary that the whole of the instruction should go on in one large room, so fitted up as to allow the master to exercise constant oversight over all its details. When, however, responsible and efficient assistants are engaged, it will be found much better to make such a subdivision of the school into separate compartments as shall isolate each class and its teacher from the rest, and thus preserve them from interruption. In order to secure this advantage without interfering with the master's powers of exercising general superintendence, the best plan will be to divide the several classes from one another during the hours of teaching by means of curtains, so suspended that they can be readily removed or shifted whenever the teacher requires to have an uninterrupted view of the whole.

Triple division most natural.

3. As the work of a school is all performed by the children either when standing in semicircular drafts, or sitting in desks for writing, or arranged in a gallery for simultaneous instruction, the most natural and obvious arrangement for a school is that of a triple division, the first portion being an open area, the second fitted with writing-desks, and the third with a gallery. The Model Schools of the Society have recently been reorganized on this principle.

The open space nearest to the platform is intended for classes when standing; it should be measured off accurately into equal portions, and the lines indicating the forms of the draft stations should be carefully marked. This may be done either by grooves in the floor, or by iron wire let into it. A strong box should be provided for each of these drafts, which may serve both to contain the books and slates, and to furnish a seat for the teacher. Each class should also have a black board. For those classes which do not face the wall, and for the galleries, it will be well to mount the black board on a moveable easel.

The forms and desks in the second or middle section of the room must be fixed firmly in the ground; the legs or supports, if of wood, should be six inches broad and two inches thick; but cast-iron legs are preferable, as they support the desk-board with equal firmness, occupy less room, and have a much neater appearance; their number, of course, will be in proportion to the length of the forms. A form twenty feet long will require five. The corners of the desks and forms should be rounded, in order that the children may not hurt themselves.

Desks and forms are occasionally so coupled together as to form one moveable block. When well and firmly made, they will be found to stand almost as steadily as fixed desks. Though somewhat more expensive, this plan will be found advantageous in cases where it is desired, either for Sunday school or other purposes, to alter the arrangement of the schoolroom, or economize its space. As a general rule, the room should be so constructed as to allow seven square feet of area for each child intended to be accommodated. Schools are often inconveniently and unhealthily crowded when the number of children exceeds this proportion.

General rules for fittings.

4. The space or passage between a form and the next desk should be one foot six inches; the horizontal space between a desk and its form three inches; the breadth of a desk twelve inches; the breadth of a form six inches; the height of a desk twenty-eight inches; and the height of a form sixteen inches. Every child being seated upon his form, occupies a space of eighteen inches in length of the desk. When semicircular classes are formed on the sides of the room, the passage between the walls and the ends of the forms and desks should be eight feet.

Flat desks have been found to be on the whole more convenient than those with an inclined surface. No beading is then required, to interfere with the convenience of the writer's arm. When the desks are arranged in groups, the passage between their extremities should not be less than two feet in width. Inkstands should be sunk in the desks, and when not in use should be well covered. A long sliding strip of wood, of the same length as the desk, will often do this more effectually than separate lids.

It is not desirable that more than fifty children should be seated on a gallery at the same time. It is seldom, indeed, that even this number can be taught collectively in a thoroughly efficient manner. As a general rule, forty is a sufficiently large number to be placed under simultaneous instruction in this way.

In constructing a gallery, space may be economized by making each step seven inches high, and placing upon it a seat rising five or six inches above. The feet of the children are then placed *under* the seat in front of them. When the same plank serves both for a step and a seat, more space is required, and much dirt is occasioned.

Playground accommodation.

5. It is highly desirable, even if the school be not very large, that there should be space enough for a playground or yard, in which the children may assemble before they go into school, or during the hours of recreation. The soil of this yard should be of gravel to the depth of one foot. It should be enclosed by a wall of suitable height, and have a communication from the street, without passing through the schoolroom. There ought to be a good supply of fresh water, either from a pump or cask, with conveniences for the children to wash their hands and faces.

It is also desirable, for the accommodation of the pupils, that one side of the yard be furnished with seats, and a part covered, in order to protect the children from inclemency of weather.

Where there is sufficient ground, it is a good plan to lay out some of it as little flower-beds with borders. In well-disciplined schools these will not be injured by trampling or neglect, and they furnish a good exercise in self-restraint for the children, besides a test of the general moral influence in favour of order and neatness existing in the school.

Apparatus for encouraging gymnastic exercises in the playgrounds of boys' schools can be obtained at a small cost, and is a very desirable appendage to a school. The simplest and most approved contrivance for this purpose is a circular swing, consisting of an upright pole about fifteen feet high, with a horizontal wheel at the top, to which five or six ropes are attached. This is an excellent method of promoting healthy muscular exertion.

SECT. 2.—SECTIONS AND DRAFTS.

Division into sections.

6. A large school should be divided into sections, containing as nearly as possible fifty pupils each; each section should be divided into drafts, containing from ten to fifteen pupils; and the children in each section should continue there for every study until promoted to the next. A child should not be in one section for arithmetic, and in another for writing or reading, but should continue in the same section for all his studies.

But although a child should remain in the same section, and thus be under the care of the same pupil teacher, or elder monitor, until permanently promoted, he need not be in the same draft of that section for every study. If the section be divided into four drafts, he may happen to be in the first for ciphering, in the fourth for reading, or in the second for writing, and so on for the rest. It is *desirable*, however, that, as far as possible, his progress from draft to draft should be uniform, for every exercise carried on in the section.

Basis of classification.

7. As the basis of the above classification, the degree of attainment in *reading* may be regarded as fixing the section to which any child in the *lower* portion of the school belongs; and skill in arithmetic may determine position in the upper. While the children are only able to read the Daily Lesson Books, Nos. I. and II., and the Sequel, the difference in their skill in reading is more marked than in arithmetic; but when they commence reading the Daily

Lesson Book, No. III., the difference of their skill in the latter study is more easily ascertained than in reading.

SECT. 3.—CLASSIFICATION FOR READING.

Progress in reading registered.

8. For the purpose of registering progress in *reading*, the school is divided into six classes. The following are the attainments and lessons of each class:—

(a.) The alphabet, and easy words of two and three letters. Lesson Book, No. I., p. 8 to 15, inclusive.

(b.) Words of one syllable. Lesson Book, No. I., p. 15 to 45, inclusive.

(c.) Words of two and three syllables. Lesson Book, No. II.

(d.) Words of three and four syllables. Sequel to Lesson Book, No. II.

(e.) Words of four syllables. Lesson Book, No. III., and Scripture Selections.

(f.) Any kind of reading. Lesson Book, No. IV., and the Bible.

Definite lessons to be taught.

9. In a *large* school each of these classes might form a section, while in very small ones a section will include several classes.

In each section *definite lessons* should be taught. In the *junior* divisions of the central schools all the lessons of the Lesson Books, Nos. I., II., and Sequel, are divided into portions for a fortnight's reading, and in each section every such portion is taught at a different draft station. Thus, all the lessons in these books are taught within the fortnight to different drafts of boys.

The reading books, Nos. III. and IV., are then divided amongst the sections of the *upper* school, so that each section has a distinct portion, which lasts three months; the whole section reading the *same lesson* at the *same time*. This is done that the superintendent of the section may put the boys together on the gallery for a general analysis of the lesson, after it has been read and explained in drafts.

10. The plan of reading is so arranged as in most cases to allow two days for the reading and study of one lesson. In small schools so many lessons cannot, of course, be proceeding at the same time; but the principle should everywhere be followed out of dividing the lesson books into such portions as can be taught in a given time, and having the same portion always taught in the same section. Every day should have its appointed lesson, and every lesson should be carefully read, and thoroughly analysed and explained.

Two days given to one lesson.

SECT. 4.—CLASSIFICATION FOR WRITING.

11. For writing a different classification is followed. The sectional division (of fifty pupils each) is here retained. The children of the lowest sections are employed *on slate*, with pieces of slate-pencil inserted in pencil-holders. The position of the body and hand, the forms of letters, and the elementary principles of writing, are thus taught before the expense of writing on paper is incurred. Children should not, however, be kept from copy-books longer than is absolutely necessary; the additional trouble entailed by the use of pen, ink, and copy-book, is more than repaid by the better means of training and improvement which they afford.

Sectional division preserved

12. Each section is divided according to the number of desks allotted to its use during this exercise. Thus, if five desks, accommodating ten boys each, are used for the purpose of writing, the ten best writers would sit in the front or first desk, the ten next best in the second desk, and so for the rest.

Classed by desks.

The copy-books of each section, when not in use, should either be kept in a small box, containing as many divisions as there are desks in the section, or they should be tied up between two stout boards, somewhat longer and broader than the books themselves. In this case pieces of pasteboard may be used to separate the books belonging to the different desks. In every instance the copy-books of each section should be kept entirely distinct from those of every other.

SECT. 5.—CLASSIFICATION FOR ARITHMETIC.

Ten classes formed for arithmetic.

13. For arithmetic the school is divided into ten classes. The *first* class is engaged in receiving lessons on the first ideas of number, and the elementary operations of arithmetic, illustrated by the ball-frame, marbles, peas, and other familiar objects. The use of figures, both Arabic and Roman, is also explained, and the children are further occupied, when in drafts or at writing desks, in acquiring an extended knowledge of the tables or in writing down figures *neatly*.

Nine according to progress.

14. The other *nine* classes in arithmetic are formed according to progress; each *rule*, simple and compound, requiring a distinct class; and each class spending *part* of its time in recapitulating the work of the classes below. The tenth class is made up of all who have passed what are commonly called the elementary rules of arithmetic, as applied to weights and measures.

15. The number of children in each class will of course vary according to the number in the school. For example, in a school containing 200 children, and forming four sections of 50 each, the highest section would probably contain all the boys in the tenth or highest class of arithmetic, and the lowest might form the first class. The second and third sections would then be composed of children engaged in studying the four first rules of arithmetic, simple and compound.

A plan of study required.

The teacher should never fail to draw out a plan of study, providing for careful attention to each operation in its proper place, and for recapitulation. In most cases the first class, besides going through the work set down for them, would find time to go through a preliminary course of *practice* on the first rules, where the principles given would be exemplified by themselves on their own slates by very *simple and familiar* illustrations.

SECT. 6.—CLASSIFICATION FOR OTHER STUDIES.

Miscellaneous studies. No fresh classification required.

16. When the children have been carefully separated into sections for the purposes of collective teaching and moral superintendence, and again subdivided into drafts according to their skill in reading, writing, and arithmetic, but little further subdivision will be necessary for other studies. The *sectional* division will, of course, do for every subject taught collectively, that is, *to the section as a whole;* the reading drafts will serve for spelling, derivation, grammar, and geography; the arithmetic drafts for mental arithmetic and tables; and the writing subdivisions, for all exercises carried on in the desks.

Exceptional cases.

17. If a child is found whose reading qualifies him for the *third* draft in the section, while his knowledge of grammar renders him fit only for the *second*, it will be easy to make him for a time an exception to the general rule, by keeping him in the second draft while grammar is being studied; or, which will generally be preferable, by putting him in the second draft for reading also, until he is sufficiently advanced for promotion in grammar.

CHAPTER II.

AGENCY EMPLOYED.

SECT. 1.—PUPIL TEACHERS.

Duties of pupil teachers.

1. Each section of the Borough Road School is placed under the care of a pupil teacher, who is expected to marshal his children in order, before entering the schoolroom, and to lead them quietly to their places. He is also considered responsible for the regular and punctual attendance of the children in his section, their general order and cleanliness, and their progress in their studies. He keeps a roll-book, in which he marks the daily attendance of his children; examines them as to their advancement at stated periods; and recommends the most proficient for promotion, as vacancies occur in the next higher section of the school. These children are again examined by the pupil teacher of the section to which they have been advanced, and any unsuitable promotions are reported to the head master. The *elder* pupil teachers take their turn in conducting the changes of the school, and in its general superintendence.

Their separate instruction.

2. An hour and a half is devoted out of the regular school hours to the instruction of the pupil teachers in those branches of knowledge necessary to qualify them to pass the annual examination by Her Majesty's Inspector. Regard is also had to the probability of their becoming candidates for Queen's scholarships; and the most promising among

them receive instruction during the first half of each year, so as gradually to prepare them for that more extended examination.

The *morning* of each day, before the school commences, is considered the best time for the regular hour and a half's study, where such a course is practicable: if this cannot be done, part of the time should be taken from twelve to one o'clock in the middle of the day; and the rest before going home in the evening. It is desirable not to bring them back to school after once leaving it for the day, as such a course interferes greatly with their time for *private* study—a habit of the utmost importance to them.

Peculiarities of it.

3. A somewhat different principle is followed in the instruction of the pupil teachers from that which rules the teaching in the school. While much is necessarily done *for* the children, by *bringing down* the lessons to the level of their mental capacity, the pupil teachers are led to do *most* for themselves. They have their text books and home lessons on each particular subject of study, and the teacher chiefly busies himself in *testing* the amount of labour which they have brought to bear on the preparation of their lessons, and the accuracy of its results; in removing their difficulties; in calling attention to general principles; and in adding to their stock of knowledge, by supplying from his own resources what the text books in use may not contain.

Lessons on method.

4. Besides the instruction just mentioned, the pupil teachers have a distinct course of lessons on "Method;" and another course, having for its object the supplying of information connected with the regular lessons of the school, as well as the mode of communicating it.

Twice a week also they give what are called "criticism lessons," where each pupil teacher, in turn, gives a collective lesson, or teaches a draft of children in the hearing of his fellow-teachers, and is afterward subjected to friendly criticism and correction. In addition to this, a sketch of every collective lesson given in the school by the pupil teachers is previously prepared, and submitted to the inspection and criticism of the superintendent.

They superintend the school in turn.

5. For the purpose of familiarizing them with all the operations and lessons of the school, and enabling them to teach both the younger and elder children in it, they change their sections every six months. By this means they superintend every section of the school during the period of their apprenticeship.

Duties of superintendent.

6. It has been mentioned that the elder pupil teachers take their turn in superintending the school: the duties are—

(a.) To see that the school bell is rung five minutes before each school time.

(b.) To preserve order while the children are taking their places, and during the whole of the school exercises.

(c.) To report if any of the pupil teachers are not at their posts at the appointed time, or if they leave them during the school exercises.

(d.) To conduct the school changes as quickly as possible, and in a quiet and orderly manner.

(e.) To report if the furniture and apparatus in use in the sections are not put away into their proper place when done with, agreeably to the school motto—"a place for everything, and everything in its place."

(f.) To superintend the sweeping of the schoolroom after the children are dismissed, and to prevent disorder out of school hours, either in the schoolroom or playground.

SECT. 2.—MONITORS.

Monitors still retained.

7. Schools established on the plan of the British and Foreign School Society were formerly distinguished by their adoption of a plan, sometimes denominated the *mutual*, and sometimes the *monitorial*, system.

The collective method of instruction has long been engrafted on this system; and for some years pupil teachers, apprenticed by the government, have assisted in the central school, as in many others, in giving enlarged development to the education afforded. In other schools elder boys are retained by the committees for a year or two with a small stipend, and supply, in some measure, the places of those more regularly apprenticed.

Still the use of monitors is not abandoned. When *combined* with collective teaching by the master and pupil teachers, and with superintendence and training by the same agency, it may be made very valuable. To show this, it is only necessary to point out the insuperable difficulties with which the teacher of a large school is beset when first entering on his office, and then to see how well he may overcome the whole by *a judicious use* of monitors.

Their use in promoting order.

8. In the first place, to secure perfect quietness and attention in such circumstances, before any address is made to the minds of the scholars, the eyes and voice of a single person, even after long practice, are scarcely sufficient. But granting that a single teacher *may* have the whole of his scholars brought into prompt compliance with distinctly expressed orders given to the whole; yet when, in addition to the silence and attention of a minute or two, that of an hour is required, nothing but the faculty of keeping every mind among them interested in the subject on which he is addressing them, could command attention, or restrain noise.

But it is impossible for a teacher to address a large number of children of different ages, and different degrees of acquirement, so as to be intelligible to all, interesting to all, and instructive to all, at the same time. The lessons given to the oldest, including the language in which the ideas are clothed, and the ideas themselves, would exceed the comprehension of the younger children; and no sooner should he turn to address himself to these, than the others would perceive he was dwelling on matters with which they were quite familiar, and was using language too childish to merit their attention.

By a careful arrangement, however, of the school into sections and drafts, adjusted according to the relative acquirements of the scholars, and by appointing over each a pupil teacher or elder boy, assisted by monitors chosen from their own number, the master at once secures closer inspection, and makes it possible for all to be addressed at the same time on the subjects, and in the manner and language best adapted to the actual progress of each.

Efficient instructors within limits.

9. So far a manifest advantage is secured. But it may be objected that monitors, being but children, must, as teachers, be very unequal to adults; and moreover, that while thus engaged in giving instruction to others, they must be losing ground themselves. Both objections are very natural, but admit of the most satisfactory refutation. In the first place, children, while thus acting the part of subordinate teachers, feel a sense of the responsibility and of the comparative importance assigned to them, quite sufficient to make them anxious to perform their parts well, and readily to adopt the recommendations, and follow the injunctions, given by the head master. He can also suspend, remove, or change his monitors, as he may think proper, without doing them that personal injury, or provoking that personal resentment, which would probably result from the exercise of a like freedom towards older and less dependent assistants.

Beside which, children are, in many respects, the most efficient instructors of companions less advanced than themselves. The lessons they teach, even the very simplest, and on that account to adults the most uninteresting, having been learnt by themselves but a short time before, and thereby still retaining somewhat of the interest of novelty, are communicated to others with more zest than adults can possibly feel.

For the same reason, monitors can sympathize far more readily with the difficulties of their pupils, having but just emerged from those difficulties themselves; and in their explanations, all their ideas and expressions are not only more directly addressed to the precise perplexity which has made explanation necessary, but are those, also, of persons of the same rank and habits, and of nearly the same age with the children to whom they are addressed. *In some respects*, therefore, monitors are well fitted to be the agents in communicating instruction; and *in some cases* it is obvious that they are not merely useful, but, with the scanty funds allotted to public schools, absolutely necessary.

Their separate instruction.

10. To the other objection, that monitors, while acting in that capacity, must, as scholars, be either stationary or retrograde, it may be answered, first, that they are so engaged only during a part of the school time. Accordingly, while the latter are engaged in other exercises, and superintended by the pupil teachers, the former may be collected as a class by themselves, receiving from the teacher instructions which they of the whole school are best prepared to meet, because, in respect of knowledge, they most nearly approach him. In the second place, while teaching others what they themselves best know, they are familiarizing their minds more and more with these past acquisitions; and in the discharge of the trust committed to them are learning the practice of many excellent virtues. The system hence embraces a wider field, both for the observation and the exercise of moral practice, and for the improvement of the intellectual faculties.

But the probability that monitors will derive any positive moral improvement from the discharge of their duties must, of course, very much depend on the manner in which the head master exercises his general superintendence. If, in consequence of the Divine blessing attending his wisdom and care, these youths should acquire some practice in the virtues of fidelity to their trust, and of patience, good temper, and strict impartiality towards their inferiors, may we not indulge the hope that many of them will be enabled to continue the exercise of these valuable qualities throughout their future lives?

To be carefully selected.

11. The selection and training of these agents is, therefore, a most important branch of the teacher's duties, requiring the exercise of all the skill, judgment, and information he possesses. A master should be constantly looking out for such boys as may, by means of his training, become qualified for monitors. He should endeavour to discover what particular offices in the school they are most suited to fill, keep a memorandum of their names, and note the duties which he conceives they may be competent to discharge. He then, aided by his pupil teachers, should instruct them in all their personal and relative duties, insist on subordination to their superiors, explain to them the necessity of such subordination, and impress the importance of the charge they have undertaken. He should encourage kindness and goodwill towards the boys whom they are appointed to direct, and he should show them the necessity of the strictest impartiality in the discharge of their several duties. Much time should be also devoted to their instruction, particularly in the art of questioning.

Two sets needed.

12. Two sets of monitors are needed in schools where this agency *alone* is secured, in order that one set may be engaged in teaching, while those composing the other are either at work as pupils in their respective stations, or being trained for the performance of their monitorial duties. Half an hour every day should be set apart for the latter purpose. It is recommended that this half hour should be taken at a different time each day of the week, so that the master may never have his attention drawn off from the working of the school during the same exercise more than once in each week.

Points to be regarded in their selection.

13. In selecting these agents the master should have respect not only to general intelligence, but to cleanliness of person, propriety of conduct, and good moral habits. He should also endeavour, by every means in his power,

to secure their attachment to himself, so that their service may be one of affection, and not of constraint or fear. When a sufficient number has been chosen, the master should proceed to train them—

First. In the maintenance of order in their drafts, and in the exercise of kindness and impartiality toward their children.

Second. In the methods of teaching the subjects in which they take a part.

How to be trained for work.

14. An important inquiry, often made, is, *How* should they be trained? The following plans, amongst others, may be adopted:—

(a.) The master should sometimes call them together, explain their duties and responsibilities, and notice, in a kind and friendly manner, whatever may have occurred during the performance of their duties; administering, at the same time, either praise or censure, as the cases may require.

(b.) He should take classes before them in different subjects as a model for their imitation, directing their attention to the points which he wishes most particularly to notice.

(c.) He should give them short lessons or lectures on the rules for preserving order, and for the right use of the methods of explanation, interrogation, and ellipsis. It is a useful variation of this exercise to get the monitors to write short essays on these subjects, the master collecting them afterwards, and pointing out errors or omissions to the assembled class.

(d.) He may form the monitors into a class, and having selected a lesson, require the monitor who has to teach that particular lesson to give it to the monitors just as he would teach it to his own draft. As the lesson proceeds, the master may occasionally stop the teaching, and say to the rest, "Is that what you would have said?" "How would you have brought out that fact without telling it?" &c.*

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* The point the teacher should aim at is not merely that of supplying information, but having the lesson given just as he

(e.) Let one of the monitors take a draft of children on any lesson he will *afterwards* have to teach, the rest of the monitors being provided with paper or slates, on which they should write criticisms on the manner of giving the lesson. After the lesson is over, and the draft sent away, these criticisms should be read over by those who have written them, the master taking care to have merits noticed as well as defects, and adding such observations as may appear necessary.

(f.) Assemble the monitors in class, and let them mutually question each other on the rules for preserving order, and on methods of teaching, or on a lesson appointed for this exercise some few days previously.

(g.) Let them take home the lessons they are to teach in their drafts the next day, and write the explanations and questions on them which they intend to use while teaching, before the lesson is given; and let these preparations be examined and criticised by the master in presence of the assembled monitors. This and several of the preceding methods are valuable as exercises on spelling and composition.

(h.) The master should frequently listen to the monitors while actually teaching in their drafts, making entries in a book kept for that purpose. These notes should be read and made the subject of comment at the next meeting of the monitors' class. Where pupil teachers are engaged in addition to monitors, one of these youths should always be present with the master at the training lessons, and may soon be made very useful in assisting to conduct them.

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wishes it to be taught to the boys. By this repeated training the monitors will be constantly improving; their positive excellence depending, however, upon the standard the teacher exhibits in his own teaching, and upon the skill, and industry, and research he brings to bear in the process. He must bear in mind that on his success in this particular depends very much of the efficiency of his school.

Section monitors needed.

15. Besides these *teaching monitors*, the most careful pupil in each section should be made *section monitor;* he should be chosen and directed by the pupil teacher, and his duties would be to take care of the books, pens, and maps, belonging to his portion of the school, and to give out and collect slates, pens, and books.

Monitors must be rewarded.

16. To get these various duties performed cheerfully, *rewards* must sometimes be given. The instruments chiefly employed for this purpose are reward tickets of nominal value, which are given to deserving boys as a token of their good conduct, and withdrawn whenever it is requisite to punish. The number granted for good, or withdrawn for improper conduct, is necessarily discretional.

The general tendency of reward tickets, when judiciously distributed, is to prevent or correct faults, which would otherwise require corporal punishment or dismission. They accomplish, however, a much more important end, when they excite, as they frequently do, the co-operation of the parents. The acquired ticket is equal to a letter of approbation from the teacher to the parent, and calls forth praise; while, on the other hand, their diminution in number, or the absence of any increase, excites inquiry.

These tickets should be called in at stated periods; the name, class, amount, entered in a book; and a choice of prizes, consisting of articles combining utility with juvenile interest, should be purchased, and each one, in turn, allowed to select to the amount of tickets he has gained.

How to be allotted.

17. Where rewards are given to the monitors *as such*, they should be determined by the proficiency which his draft or class makes. It is not desirable to give the *same* amount of reward to each monitor, but let the better have more than the average amount, and the worse less. Thus, if the average payment of the reading draft monitors be 2*d.* a week, some might receive for any one week 3*d.*, and some only 1*d.* The *standard* in reference to the READING should be, the ability to read the assigned portion off readily,

to spell and explain all the words occurring in it, and to have a good knowledge of the subject, independent of the book or tabular lessons. In ARITHMETIC, they should readily work questions given under the rule, give a familiar explanation of the principles involved, and very readily read off every number operated on. In WRITING, advance must be determined not merely by excellence of the characters written, but also by the neatness and cleanliness of the book, viz., freedom from blots and mistakes, and with the corners of the book not turned down. This clean and neat writing should be much insisted on by the teacher.

Indirect encouragements.

18. These rewards, however, are only the direct means of encouragement. Those of a more indirect character are often, in a good teacher's hands, vastly more influential. Some of the chief of these indirect means may be mentioned—

(a.) The monitors should be a kind of upper class standing between the master and the scholars, and having constant communication with both. The master should consult with them on his various plans; and, as long as they continue in office, treat them with great confidence and kindness.

(b.) He should avail himself of opportunities to visit objects of interest, accompanied by his monitors. In London, the Zoological Gardens or Museum; and in the country, a beautiful view, a ruin, or any other object of local interest, might be taken, or an excursion for the purposes of natural history. He might also sometimes join in their sports with good effect.

(c.) The monitors should, *as such*, have free access to the school library. The desirableness of such a library, consisting of well-selected books, is obvious; it provides a fund of amusement as well as of instruction for the children, interests their parents, and tends to keep the pupils from evil influences in the streets.

CHAPTER III.

METHODS OF INSTRUCTION.

SECT. 1.—GENERAL PRINCIPLES.

Formation of character.

1. The first great and leading principle of all sound education is, that it is a teacher's duty to pay more regard to *the formation of the character* of his scholars, than to their success in any or in all the branches of learning professedly taught. With a view to enlighten their judgment, and to bring them under the influence of right impressions with respect to moral good and evil, it is considered to be of the utmost importance that they should, from the first, be taught to distinguish between matters of permanent and immutable obligation, and mere comparative degrees of attention and diligence. Every manifest infraction of the Divine law ought, therefore, to be treated in a very different manner from slowness in the common school exercises, or even from the petty misdemeanours of unthinking and volatile minds. On occasions of the former kind, teachers are expected to show that visible concern and sorrow which such offences will undoubtedly excite in every virtuous mind; and, if possible, to bring the offender, by earnest remonstrances, to a conviction of his sin.

Self-satisfaction to be discouraged.

2. In allowing children to enliven their school exercises by giving and taking places, there seems to be nothing inconsistent with christian morals; yet were the same practice

admitted in matters of moral merit or blame, dangerous consequences might ensue. This, and every similar practice, ought, therefore, to be avoided, and great care should, on the other hand, be taken that no child be tempted or encouraged to indulge in feelings of self-satisfaction on the occasion of another's fault.

Authority of parents to be strengthened.

3. *Deference to parental authority*, united with regard to parental assistance, is another important principle not to be lost sight of. Parents are the natural guardians of their children; and, however they may occasionally be sunk in ignorance and vice, they seldom entirely lose the sense of their responsibility, or become altogether incapable of exercising authority to some good purpose; so that, in a great majority of instances, the most beneficial results may be derived from a clear acknowledgment of their claims, and a sedulous courting of their assistance. The British system respects this natural and important principle in various ways. While it discourages all neglect of Divine worship, it leaves to the parents to direct in what manner, and at whose hands, their children shall on that day receive religious instruction. Teachers are recommended to maintain a constant communication with parents, respecting the habits and principles of the scholars; by which means they may greatly improve the influence of parental authority, and also strengthen both that authority and their own; as their pupils will thus perceive that there is a cordial co-operation between their natural guardians at home, and the authorities they are taught to respect in school. The prescribing of home-tasks presents another mode by which parental interest may be excited, and parental assistance engaged.

Prompt obedience to be required.

4. *Respect for the teacher*, and implicit obedience to his commands, are principles which should be assiduously cultivated; but it must be the respect of dutiful affection, not that proceeding from slavish submission. Higher motives will, doubtless, grow up, as the scholars become better acquainted with a good teacher's character, and more

capable of appreciating qualities that command respect; but, even before they have all advanced thus far, habits of prompt obedience must be universally established. With children who are restless, volatile, and unused to restraint, mechanical motions of the body, as they are at once easily understood, and readily performed, afford the best means of inculcating these habits; and no teacher ought to rest satisfied until he has brought every child to sit, stand, speak, or be silent, on the instant of the command being given. Until this point be gained, time is daily lost, not only to the careless and disobedient, but to the whole school; and when habits of partial obedience have once been tolerated, the difficulties to be overcome are greatly increased. If, on the other hand, teachers will respect their own authority, by never giving commands which they do not expect to be immediately obeyed, nothing will be found more easy than to make obedience the general and settled habit of the school.

Mind to be interested.

5. But it is not by means of respect for authority, nor by habits of obedience, alone, that British Schools propose to accomplish their objects. There are, indeed, many exercises which mere authority may enforce; but, under such a course of discipline, intellectual improvement would be slow, and the results on the temper and character would be worse than doubtful. Happily, no sooner is this, the first step as it were, of the teacher's progress past, than abundant resources are presented for securing a course of occupation, at once pleasant and profitable, which it is the province of system to methodize, and regulate to the best advantage. To a healthy child, the activity of the mind is not less natural than that of the body. As by free and voluntary movements the limbs and muscles are strengthened and invigorated, not only without pain, but with positive delight, so it is with respect to the mind. But if we would excite free and pleasant mental exertions, the mind, in its first efforts, must be invited to no more exertion than is

suited to its infant capacities, and its limited knowledge. Commencing thus, its powers will be found at every step to acquire new force and elasticity, to be capable of greater and greater attempts, and of longer attention to one subject; and these advancing energies it must be the object of the teacher so to discipline and inform, that in their progressive development they may come more and more under the permanent influence of right principles, and be applied to those objects only which are innocent and useful.

And powers developed.

6. Again, the mere acquisition of knowledge is made subservient to the development of the mental and moral powers. Education is not considered to mean the *putting in* of so much information, but the *bringing out* of mental activity; exercise being the law of mental as well as of physical growth. In the light of this principle ideas are given before words, things before the signs which express them, the concrete before the abstract, reasons as the foundation of rules. The things which are familiar to the children are made the starting-point from which the teacher guides his pupils to wider views and more enlarged acquirements, leading them along by slow and gradual steps, and making sure of one advance before attempting the next.

Perceptive faculties to be exercised.

7. Another principle continually kept in mind is to suit subjects of study, and the manner of treating them, to the progressive development of the mental faculties. Thus the exercises and lessons of the younger pupils are intended chiefly to exercise their *perceptive* faculties, while, as they advance in age and mental power, reason, judgment, and memory are more particularly exercised. In every stage, however, the knowledge which is likely to be useful to them after leaving school is made the *instrument* of their moral and mental training.

Meaning to be associated with everything.

8. Proceeding on these principles, in *reading* the scholar is taught from the first to associate meaning with the symbols he is learning; and this meaning is so explained and illustrated as to make even these first efforts interesting as well

as doubly instructive. A child likes to tell what it knows about the simple objects with which it is most conversant. The words which are used to express objects are first presented to him, and he is taught by familiar questions to associate with each its appropriate meaning, and its proper sound.

9. From this time forward every lesson proceeds on the same principle; the words, phrases, and sentences brought before the scholar's eye, being such only as can add to his information, or interest his feelings and his conscience; all others are excluded as useless and repulsive. Thus not only do those exercises interest the attention which would otherwise fatigue and annoy it; but the invaluable habit of looking for a meaning in every word and sentence read becomes fixed and permanent.

SECT. 2.—PREPARATORY SECTION.

Elementary course first given.

10. The first section of the lower school is composed of children from four years of age. As these generally enter the school unable even to read the alphabet, and with minds altogether untrained, they are put through a course of instruction more elementary than that generally given in British Schools, but agreeing with it in principle. The design of this course is to fit them for entering upon the more advanced and systematic exercises of the school, not only by giving them the necessary preliminary information, but by training them to exercise their powers of observation and reflection on the familiar objects by which they are surrounded.

Familiar things explained.

11. With this view, their food, clothing, and playthings —the common earth-stones and minerals—the materials in daily use in the schoolroom, as well as the bricks, mortar, and wood used in its construction—the animals and vegetables which they see most frequently, and are likely for that reason to think about least—all these are laid under

contribution, in order to develop the faculties with which their Creator has endowed them; to make them useful, intelligent, and kind in their intercourse with others; and to implant habits of thoughtful reverence towards Him for whose glory all things were made. The most remarkable events recorded in the Holy Scriptures are also daily brought before them in the gallery in such a manner as to educate both their conscience and their intellect, and to promote good moral habits amongst them. The important influence which may be thus exercised upon their home associations can scarcely be overrated; the innocent prattle of the schoolboy may by these means frequently become the gentle instrument of correction to the ignorance and vice of the parent.

Method of teaching the alphabet.

12. The *alphabet* is introduced to this section by means of collective lessons. When the children are seated in the gallery, the teacher shows some familiar object having a short name. He first puts a few questions on the object itself. The name is then written on the school slate, and analyzed into its component *letters;* the sounds of these are given, and then their names. The sound of the second and third letters put together is then asked for; and other letters are placed before them, forming other simple and well-known words, on which the children are also questioned.

When eight or ten letters are thus learned, the teacher prints them in a line on the large slate, at the dictation of the children. He then points to them at random, getting the children to name and describe each, and to compare it with others; first having the hands up of those who wish to answer, and then pointing to the one whom *he* wishes to speak.

It is a judicious plan to let several try to describe each letter, as by this means not only are their little minds set to work in attempting to express their thoughts in suitable language, but several ways of describing the same thing will also probably be brought out. A little physical exercise may then be allowed, a verse or two of a simple school piece sung, and the children be led to their reading stations.

Daily Lesson Book, No. I.

13. The children are now employed in their drafts in picking out the letters and words just learnt in the gallery, from the Daily Lesson Book, No. I., in broad sheets; while the monitor or pupil teacher leads one and another of the pupils to the black board or slate provided at each draft station to print the letter or word which he names. He also questions on the information already given respecting the object exhibited at the commencement of the gallery lesson, and on the other words formed during the progress of that lesson.

Use of the black board here.

14. The next change finds these children in the writing desks, with slates on the desks before them, and pencils, fixed in holders, in their hands. The teacher now prints on the black board one of the letters learnt, and questions on the direction and comparative length of the lines composing it; bringing out the ideas straight, curved, vertical, horizontal, oblique, or parallel. He then pursues the same course with the rest of the letters which form the subject of the lesson, the children imitating them on their slates, first from the teacher's copy, and afterwards from dictation. The alphabet is thus quickly and easily learnt, while at the same time the minds of the children are developed, and much useful information imparted respecting words and things.

15. In the same familiar and conversational style courses of lessons are given, on the first principles of language, number, and form; on objects, animals, vegetables, and colours, accompanied by practice in reading and spelling, from the Daily Lesson Book, No. I., and a familiar course of lessons on the principles of writing.

Scripture prints, how used.

16. Lessons on the most remarkable events of Scripture alternate with those just mentioned, and the aid of Scripture prints is called in, to help the perceptions of the children, and to assist in sustaining attention. The following is a

brief sketch of the manner in which such a lesson is conducted. Suppose the subject to be, The Children of Israel crossing the Red Sea.

(a.) The teacher hangs up the print in front of the gallery, and pointing to the various figures depicted on it, asks in turn who they are—what they are doing—and why there? thus bringing out the chief points of the story in a simple and graphic manner.

(b.) He reads the narrative from Exodus, chap. xiv., putting questions as to the meaning of the words and phrases as he proceeds.

(c.) He closes the book, and goes over the story again, mingling questions, ellipses, and simple narration, thus endeavouring to lead the children to realize all the incidents of the scene, and placing them as far as possible in the position of spectators.

(d.) If the lesson has been properly given, the children will be able to state the lessons to be drawn from it—namely, that the Lord will help his people in trouble; and the sin and folly of striving against God. The teacher then seeks to apply these lessons to the daily life of the children, basing a few short and simple remarks on facts which have occurred in the actual school or home experience of those before him.

Having thus briefly indicated the methods pursued with the very youngest children, we proceed to notice the subjects taught and the methods employed with the rest of the school.

SECT. 3.—COLLECTIVE TEACHING.

Collective teaching not lecturing.

17. A collective lesson differs very materially from a lecture. In the latter the children are passive listeners, in the former they are lively actors. By means of questions and occasional ellipses, their minds are kept continually at work; and the teacher, taking those in the class whose mental powers are least developed as his standard of simplicity, acts and speaks before the gallery as a fellow-

inquirer after truth, while he leads them imperceptibly on in the path he had previously marked out.

18. As the lesson proceeds, both the analytical and synthetical processes of investigation are brought into use. Suppose a common earthenware cup to be the subject of the lesson. The object is held up before the section seated in the gallery, and they are asked to name the parts—as the inside, outside, handle, rim, or bottom. Should any hesitation occur, the teacher does not *tell* them what he is seeking for, but, passing his finger round the part in question, he asks, "What is this?" The names of the several *parts* are then written on the black board. The *qualities* are next asked for: here the cup is passed round among the children, and they are told to look at it, feel it, or smell it, thus employing their several senses in turn. Other properties are suggested by comparing this cup with other cups; finally, those qualities which render it fit for the uses to which it is put are elicited; and the whole is successively written on the black board.

Analysis and synthesis.

19. The teacher next asks the *form* of the cup? how it became so formed? of what it is made? and how it happens that a substance so *hard* could be brought to such a form? He thus brings out from the children the fact that it is made of clay, and that when the cup was made the clay was *soft*, and not hard as they now see it. Having, by this mode of investigation, arrived at the *beginning* of the process by which the cup was made, he shows a piece of soft clay, of the kind used for the cup, and gets the children to describe what they *think* was done *first*, and what *next*, in the manufacture of the object before them; always correcting their errors by describing the *actual* steps in the manufacture,—exhibiting specimens of pottery illustrative of the different stages,—and by means of a small model of a potter's lathe, exemplifying the process. When the lesson is given to the younger children a description of the parts and qualities occupies the greater portion of the time; but

Processes displayed.

with the elder pupils these are quickly brought out, and the manufacturing processes are more particularly dwelt upon.

Advantage of collective teaching.

20. The great advantage of collective teaching is, that it brings the trained mind of the teacher into direct and immediate communication with the comparatively untrained and uninformed minds of his pupils. Hence, for the development of the powers of the mind, for influencing the affections and directing the understanding to right views of moral and spiritual truth, for checking evil habits and encouraging good ones, the collective lesson, in the hands of a well-trained, earnest-minded, and *christian* teacher, is a powerful instrument for good.

Previous preparation needed.

21. In order to give a collective lesson well, the teacher must not only be well acquainted with the subject he has in hand, but must have the *matter* arranged in a logical and well-considered order. No collective lesson should be given until a sketch of it has been carefully prepared by the teacher for his own private use. This sketch should show the principal ideas intended to be dwelt upon during the lesson, numbered and arranged in their logical order, precisely as they are intended to be given. Under these "heads," the *manner* of bringing out each idea should be indicated; the illustrations intended to be used written down, and some of the principal questions recorded. The sketch should thus exhibit both the *matter* and the *manner* of the lesson, and should realize to the reader, as nearly as possible, the lesson itself. At the end of the sketch the teacher should note down what objects or diagrams will be wanted, and have them ready before commencing his teaching.

Dangers to be avoided.

22. The *dangers* of this method of instruction are, however, many; and mischief, as the result, is by no means uncommon. The two principal dangers are mentioned, that they may be guarded against. First. Collective teaching is not unfrequently quite *ineffective*, owing to the

teacher's being contented with merely talking for a certain time. It is very easy to talk prettily to boys for half an hour, even in such a way as to interest them; and yet, owing to want of attention to some of the points about to be mentioned, no permanent result may remain. The children have been pleased, but not instructed.

Secondly. It is sometimes efficient to only *a portion* of the boys. If the "gallery" contain boys of very different attainments, when the language and general cast of teaching is fitted for the more advanced, it is too difficult for the others; and on the other hand, when descending to the capacity of the younger, the lesson appears frivolous to the older boys.

Points requiring attention.

23. The following, then, are some of the chief points to be attended to:—

(a.) Children receiving a collective lesson at the same time should be of about the *same degree of mental standing*.

Specimens.

(b.) The teacher should be supplied with *specimens, models*, or *diagrams*, illustrative of his subject. He should also, from time to time, sketch out such objects, or portions of objects, as he may find, during the lesson, require more illustration than he has provided. This, of course, implies that the teacher is, to some extent, a draughtsman. There should be large maps, too, in the room or division in which these lessons are given.

Black board.

(c.) A large *black board* should be placed before the gallery, for purposes of illustration, and also to receive the main headings of the lessons; so that when the teacher has finished his lesson, he may occasionally form the gallery into drafts, and by means of his pupil teachers institute a searching individual examination of all who have heard it. This use of the black board is particularly valuable in the training of monitors. Its advantages are numerous. It requires the teacher to be master of his subject, and methodical in his arrangement of it; and thus, by presenting the whole in the ***natural association*** of its various parts, tends to secure the retention of what is taught. It teaches spelling too,* and the reading of written characters.

Ellipses.

(d.) Attention is best secured, particularly with the younger pupils, by the teacher's making a pause, and then leaving some of the words to be supplied by the pupils. Thus:

Teacher. "The feet of the camel are——"

Pupils. "Broad."

Teacher. "And——"

Pupils. "Spongy."

Teacher. "And——"

Pupils. "Spreading."

Teacher. "And therefore the camel is fit for travelling on——"

Pupils. "Sands."

Teacher. "It is used in——"

Pupils. "Africa."

Teacher. "And——"

Pupils. "Arabia."

Teacher. "And——"

Pupils. "Persia."

Teacher. "And——"

Pupils. "India."

Teacher. "Many of them travelling together are called a——"

Pupils. "Caravan."

The teacher must, however, take care that no ellipsis is left for the pupils to supply with words or facts they cannot be expected to know. Thus, "The olive tree lives——" If he find that no pupil is acquainted with the fact wanted, he should tell it himself, rather than allow the mischievous habit of guessing. After he has told them, he should again make the ellipsis, which would of course be supplied by the pupils.

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* As the lesson proceeds, the teacher should require the pupils to spell the principal words occurring. The spelling of words as they are actually found in sentences, whether oral or written, is by far the most effective mode of teaching it.

Repeating ellipses to this extent, however, and so closely following each other, are not admissible in practice, except for the purpose of recapitulation; the better plan is to have many questions and few ellipses.

Individual questioning.

(e.) There should be much *individual questioning*. This is one of the ways in which the real efficiency of a lesson can be tested. The eye of the teacher should pass rapidly over the gallery, and wherever he detects inattention, a question to the individual should be put, on something that had just been taught. This recapitulatory individual questioning should follow every class of facts stated.*

Induction.

(f.) A habit of *induction* should be cultivated. Thus, when the teacher has said that the elephant has a very large head, and two very heavy tusks, he should lead the pupils to *tell him*, though they may not before have been aware of the fact, that the neck must be short, and the cartilage and muscles very strong. So, when he has told them of the great quantity of vegetable food the animal eats, he might say, "Do you think it is found, then, in hot or cold countries?" If not answered, he would say, "Where do grass, and herbs, and trees grow most abundantly?"

Pupils. "In hot countries."

Teacher. "Then, as the elephant eats so much of this kind of food, in which do you think he is found?"

Pupils. "In the hot countries."

Teacher. "Why?"

Pupils. "Because most of his food grows there."

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* If the teacher find that the pupils to any considerable extent are unable to answer these recapitulatory questions, he may assume that his teaching is bad. No lesson is well given by a teacher which is not fully received by those taught.

Animation.

(g.) The whole should be conducted with great *animation.* The want of this shows itself by a very slow enunciation of words, by long pauses between sentences, and by a want of ease in the carriage of the body. Not unfrequently, also, teachers are too wordy; every word that does not tend to make the thought clearer makes it more obscure.

Simplicity.

(h.) *Simplicity* is indispensable. The absence of this quality shows itself sometimes in the use of language and illustrations that the pupils cannot comprehend; and sometimes in assuming that their knowledge is greater than it is. The constant use of individual questioning will enable the teacher to discover when he is thus shooting over the pupils' heads.

(i.) The *time* of the lesson must not be prolonged, after the children are evidently wearied out. With a judicious teacher, even the younger may be interested for half-an-hour, and the elder for a longer time.

Notes on the black board.

24. The notes on the black board may either be written as the lesson goes on, or (which is preferable), the teacher may bring out all the points under one head first, and then put down the notes on the board while recapitulating *that part* of the lesson; sometimes writing from the dictation of the pupils; and then, of course, correcting their errors, both of fact and language. At the end of the lesson there should be a general recapitulation of the whole from the black board.

If the lesson were the elephant, the black board should present an appearance at its close somewhat similar to that exhibited in the specimen lesson given in the next page. The words in italics would on the black board be underlined; those in capitals be doubly underlined.

SPECIMEN OF NOTES FOR A COLLECTIVE LESSON.

THE ELEPHANT.

1. DESCRIPTION.—*Thick-skinned.* *Height,* 7 to 12 ft.; *weight,* 5,000 to 6,000 lbs.=40 men. *Head,* large, hollow in front. *Tusks,* 2, ivory and enamel; 5 to 6 ft.; 100 to 150 lbs. *Teeth,* $\frac{2}{2}\frac{2}{2}$ 8 molars—structure: mode of growth, renewed. *Trunk,* 6 to 8 feet long; finger, thumb, hand—*uses,* obtain food, convey to mouth, lift objects. *Neck,* short, thick muscles, and pax wax very thick.

2. KINDS.

Asiatic—head long, front somewhat concave—4 *hoofs* on hind feet—*ears* small.

African—head rounder—3 *hoofs* hind legs—*ears* larger, 3½ feet × 2½—*use,* carry manure—not now tamed.

3. WHERE FOUND—*Asiatic.* Hindostan, Burmah, Ceylon, and S. of Asia generally.

African. Africa, South of Senegal.

4. HABITS. *Social,* 3,000—*herbivorous*—2 or 3 cwts., browse soft roots—(sweetmeats, sugar-canes)—*gentle*—*fond of bathing*—sprinkle dust over himself (flies)—*cautious* in going over new ground or bridge—*sagacious.*

USES. Food (African)—ivory—carrying and drawing, man on neck—goad—war—hunting.

It is better to write on the black board only the words indicating the principal ideas, leaving the rest to be supplied by the children from memory during recapitulation.

SECT. 4.—CLASS TEACHING—READING.

Definite portions allotted.

25. When the children have been divided into sections and drafts, according to the principles already stated (chap. i., §§ 2 and 3), the next business is to assign to each section and draft a *station* in the schoolroom, and *a definite portion* of the reading lessons. This section and these drafts will thus represent a particular stage of progress. All the reading lessons will, in this way, be divided among the successive drafts, so that a boy commencing with the lowest draft, and passing the proper time at each draft station, will have read and been questioned on every lesson contained in the books, or exhibited on the lesson boards.

Periodical examinations.

26. Periodical examinations should be made of the progress of the children in this as in every other subject; each child taking his place in the class *at the commencement* of each exercise, according to the position obtained by him at these examinations, which should take place every fortnight. Promotions should be made as vacancies occur in the next higher draft or section.

Monitors may be trained to assist.

27. Having determined on the portion for each section and draft, and put every section under the superintendence of a pupil teacher or elder monitor, the next object of the master is to select agents (monitors) to assist in teaching. His efforts must be zealously directed to the training of these monitors. He must secure their ability to spell, read, and explain the meaning of every word of the lesson; they must be much exercised in questioning on it, and be prepared with numerous and pertinent illustrations and applications. *No monitor should be allowed to superintend a lesson till the master has taught the whole of it minutely to him and exercised him in the mode of giving it.* This is not very difficult, because the whole number of lessons being divided among the whole number of draft monitors, only a small number of lessons are required to be given by any one

monitor; and the required information, being thus defined and limited, is easily supplied. When, also, it is recollected that the monitors do not pass forward with the boys, but remain to teach the same lessons to the succeeding occupiers of the stations, it is evident that a master of ordinary diligence may make, and permanently secure, a very capable set of monitors.

Daily Lesson Books, Nos. II., III., and IV.

28. The lessons used for the lower sections are partly on boards, and partly in books; the sections above these read entirely from books. The board or tabular lessons consist of the lessons of Daily Lesson Book, No. I., in sheets. The books consist of a set of four; the first book, called Daily Lesson Book, No. I., contains the alphabet and lessons of one syllable, in prose and rhyme; the second, or Daily Lesson Book, No. II., is a spelling book, with reading lessons not exceeding three syllables; the Sequel to Lesson Book, No. II., consists of easy reading lessons, on man, his dwellings, and wants, interspersed with poetry and interesting tales; the third, or Daily Lesson Book, No. III., consists of lessons on very varied subjects, in poetry and prose, chiefly of a moral and religious character; the fourth, or Daily Lesson Book, No. IV., has a more scientific character, including series of lessons on general history, physics, and natural history: the whole having copious notes, hints for monitors and teachers, roots of words, and tabular facts.

This course of reading is *in addition* to the daily reading of the Bible and the volume of Scripture Extracts.

How the course is commenced.

29. After the course of lessons on the alphabet and easy words of two and three syllables given to the youngest section, the pupils commence at page 16 of the first lesson book. The monitor having directed the attention of his draft to the first word, tells those who know it to raise their right hands, and then points to one of them, who says, "*S-double e,—see;*" he then questions on the meaning of the word, and on the use of sight. The succeeding words

are treated in the same manner. The explanation of the words relieves the mere literal lesson. As the lesson approaches its termination, the monitor leads them to define the words *dew*, *grass*, *rain*, and *land*, as shown at the foot of the page; exercises them in the application of the words *wet* and *cool;* and terminates with the *lesson*—"*Everything has its use.*"

30. As the words in columns at the top of the page occur in the reading lesson, the monitor should not allow the reading to begin till the boys can tell these words without spelling them. In the first instance all the words would be gone through thus—*s-double e—see*, *t-h-e—the.* But before reading, the boys should be able to mention them at sight; as, *see*, *the*, *dew.*

31. After the pupils have *read* through the first lesson book, a more systematic course of treatment, in connexion with the lessons thus read, is adopted. This consists of—

Questions before reading.

(a.) *Questions before reading.* The teacher announces the subject of the lesson, and by a few searching questions ascertains what the children already know about it, endeavouring at the same time to excite a curiosity to know more. By this exercise he is able to adapt his teaching to the requirements of the class, besides showing them how much they have yet to learn in connexion with this lesson.

(b.) *Questions, explanations, and illustrations, during reading.* The children, having opened their books at the page indicated by the teacher, commence reading. Each boy is required to read so as to be heard by all in the class. Considerable attention is paid to the slow, distinct, and clear utterance of every word, to pronunciation, inflection, and emphasis, the teacher himself frequently reading as a model, and, where necessary, requiring the class to read after him simultaneously, with slow and distinct enunciation. If any correction is required after a pupil has finished reading the passage appointed to him, the rest of the boys are encouraged to raise their hands, and the teacher singles out one, or several in turn, to make the correction.

At the end of each sentence, or paragraph, the meaning of the words and phrases composing it are questioned upon, copiously illustrated, and pictured out before the class; the teacher making use, for this purpose, of the black board, objects, diagrams, and simple explanations. He should also require one or more of the pupils to give the sense of the passage in his own words, before proceeding to the next portion of the lesson. This second exercise is considered by far the most important part of the reading lesson.

Subsequent explanatory analysis.

(c.) *Analysis of the lesson after the books are closed.* In this course the lesson is gone over again sentence by sentence, and completely analysed and illustrated. For this purpose the notes under the head '*subject,*' at the foot of each page in Lesson Book, No. III., are very useful. Information immediately connected with the matter in the lesson, whether relating to natural history (in which questions of classification and habits occur), or geographical terms requiring reference to a map, is brought out from the class or supplied by the teacher, and the lessons flowing directly from the subject are deduced.

32. The lessons of the Daily Lesson Books, Nos. III. and IV., being adapted to more advanced boys, require a full investigation of the etymology of the words. For this purpose they are provided with notes of a much more complete kind than those which precede them.

The fourth book is used both as a general reading book in the most advanced classes, and as a *text* book for the particular subjects into which it is divided.

§ 5.—CLASS TEACHING—INTERROGATION.

Specimen lesson on interrogation.

33. The mode of conducting interrogative exercises may be best shown by a specimen; one, therefore, is given on a paragraph taken from the lesson book.

SPECIMEN LESSON ON INTERROGATION.

Daily Lesson Book, No. IV., pp. 76, 77.

RUMINATING ANIMALS.—Cud-chewing or ruminating animals form the *eighth* order. These, with the exception of the camel, have no cutting teeth in the upper jaw, but their place is supplied with a hard pad. In the lower jaw there are eight cutters; the tearers, in general, are absent, so that there is a vacant space between the cutters and grinders. The latter are very broad, and are kept rough and fit for grinding the vegetable food on which these animals live, by the enamel being disposed in crescent-shaped ridges.

The great peculiarity of the cud-chewers is the power which they possess of bringing back the food into the mouth, after it has been swallowed, to be further masticated. They have four stomachs, and very long intestines; vegetable food requiring to be kept in the body for a longer period than animal food.

The fore feet, having nothing whatever to do with the food, are not adapted either for feeling or seizing, but simply, like the hind feet, for giving support. They are composed of a solid horny substance, divided into two parts; hence these animals are sometimes called cloven-footed animals.

This order is divided into two families, viz., hornless and horned animals. In the first family are the camel and musk, and the second includes deer, sheep, goats, antelopes, giraffes, and oxen. These animals are more useful to man than any others; many of them draw and carry burdens, and nearly all are used for food.

Teacher. "What have you been reading about?"

Pupil. "Ruminating animals."

Teacher. "Give me another name for ruminating."

Pupil. "Cud-chewing."

Teacher. "What is the root of the word?"

Pupil. "Rumen, the cud."

Teacher. "What does the termination *ate* mean?"

Pupil. "To do or act on in some way."

Teacher. "Ruminate, then, is to ——"

Pupil. "To act on the cud."

Teacher. "What *division* of animals do the cud-chewing form?"

Pupil. "The eighth order."

Teacher. "Of what class?"

Pupil. "Of the class Mammalia."

Teacher. "What is the class Mammalia?"

Pupil. "It includes all animals that bring forth their young alive."

Teacher. "Next boy."

Second Pupil. "And that suckle their young."

Teacher. "To which of the sub-kingdoms of nature does the class Mammalia belong?"

Pupil. "To the sub-kingdom Vertebrata."

Teacher. "How many orders has this class Mammalia?"

Pupil. "Nine."

Teacher. "Name the first order."

Pupil. "Two-handed animals."

Teacher. "Give me an example."

Pupil. "Man is the only one."

Teacher. "Name the second."

Pupil. "Four-handed animals."

Teacher. "Give me an example."

Pupil. "The monkey."

Teacher. "Name the third order."

Pupil. "Killing animals."

Teacher. "Give me an example."

Pupil. "The lion."

Teacher. "Name the fourth order."

Pupil. "Pouched animals."

Teacher. "Give me an example."

Pupil. "The kangaroo."

Teacher. "Name the fifth order."

Pupil. "Gnawing animals."

Teacher. "Give me an example."

Pupil. "The rat."

Teacher. "Name the sixth order."

Pupil. "Front teethless animals."

Teacher. "Give me an example."

Pupil. "The armadillo."

Teacher. "Name the seventh order."

Pupil. "Thick-skinned animals."

Teacher. "Give me an example."

Pupil. "The elephant."*

Teacher. "Name the eighth order."

Pupil. "Ruminating animals."

Teacher. "How are they distinguished from other animals with respect to teeth?"

Pupil. "They have no cutting teeth in the upper jaw."

Teacher. "Where are the cutting teeth in animals that have them?"

Pupil. "In the front of the mouth."

Teacher. "Point to yours."

Teacher. "What other name is given to them besides?"

Pupil. "Incisors."

Teacher. "What is there in the front of the upper jaw of ruminating animals?"

Pupil. "A hard pad."

Teacher. "How do they get their food, then, without top front teeth?"

(*Pupils silent, probably.*)

Teacher. "How do we get grass?"

Pupil. "Cut it down."

Teacher. "How?"

Pupil. "With a scythe."

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* These questions should be put to recapitulate the chief points of former lessons. No lesson of a *series* should be given without reference to those given before, especially the last. *The effectiveness of teaching depends in a very great degree on its repetition.* Jacotot's maxim is a very wise one—"*Repetez sans cesse*" (Keep repeating).

Teacher. "With what does the cow lay hold of the grass when she is eating?"

Pupil. "Her tongue."

Teacher. "With what does she cut it?"

Pupil. "Her front teeth."

Teacher. "She does not bite it, then, but ——"*

Pupil. "Mow it."

Teacher. "But are all the ruminating animals without top cutting teeth?"

Pupil. "No, the camel has them."

Teacher. "And another animal, a good deal like the camel, found only in South America, and used to carry burdens over the plains and mountains?"

Pupil. "The llama."

Teacher. "Why should there be this difference with regard to these animals?"

(*Not answered, probably.*)

Teacher. "In what sort of countries is the camel found?"

Pupil. "In sandy countries."

Teacher. "Where there is rich herbage or poor?"

Pupil. "Poor."

Teacher. "On what, then, does he subsist besides grass?"

Pupil. "On thorny shrubs and thick twigs of trees."

Teacher. "Suppose, now, he has no teeth, but only a flat pad?"

Pupil. "He would not then be able to snap them off."

Teacher. "Then why has the camel incisors in both jaws when other ruminants have not?"

Pupil. "Because he could not get his food without them."

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* In explanations in questioning on the reading, as well as in the gallery, it is often desirable for the teacher or monitor to pause before some of the chief words; thus leaving the boys themselves to supply them. Care must, however, be taken, not to make such ellipses as the boys cannot supply.

Teacher. "What do we learn of the Creator from this?"

Pupil. "His power and wisdom."

Teacher. "His power and wisdom in suiting the animal to the food he has ——"

Pupil. "To eat."

Teacher. "And the place he is ——"

Pupil. "To live in." *

Teacher. "How many cutting teeth have most ruminants in the lower jaw?"

Pupil. "Eight."

Teacher. "What kind of teeth are seldom found in them?"

Pupil. "The tearers." †

Teacher. "What other names have these teeth?"

Pupil. "Canine teeth; eye teeth."

Teacher. "Point to yours."

Teacher. "If the tearers are absent, then there must be between the cutters and grinders ——"

Pupil. "A space."

Teacher. "What sort of grinders have the ruminants?"

Pupil. "Very broad."

Teacher. "And very ——"

Pupil. "Rough."

Teacher. "Why have they them broad and rough?"

Pupil. "Because vegetable food requires more grinding down than animal."

Teacher. "But how is the tooth kept thus rough?"

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* Here it should be observed that the teacher has told nothing, but by means of judicious questions has *led* the boys to *discover* a fact for themselves. This system of INDUCTION is of the first importance in questioning. It should be a rule, subject in practice to many exceptions, but still a general rule, that *nothing should be told the children, which by suitable questions they can discover for themselves.*

† If the teacher should find that the leading facts, with regard to teeth, are not known by the boys, he should make them the subject of his next gallery lesson.

(*The Pupils, perhaps, do not answer.*)

Teacher. "You read in the lesson *the enamel is disposed in crescent-shaped ridges.* What is the enamel?"

Pupil. "The hard, shining part of the tooth."

Teacher. "What part of our tooth is it?"

Pupil. "The covering of that part which is out of the jaw-bone."

Teacher. "What do you mean by disposed?"

Pupil. "Placed."

Teacher. "Name the root of the word."

Pupil. "Pono, I place."

Teacher. "What is crescent-shaped?"

Pupil. "Shaped like the moon before it is a half moon."

Teacher. "Draw a crescent."*

(*One of the class draws it on the black board.*)

Teacher. "What is the root of the word?"

Pupil. "Cresco, I grow."

Teacher. "Applied to the moon, then, when she is——"

Pupil. "Growing larger."

Teacher. "As the ruminants have to grind their food so much, what would be the consequence if the tooth were just covered with enamel as ours is?"

Pupil. "It would soon be worn away."

Teacher. "And if it were wholly of enamel?"

Pupil. "It would wear quite smooth, and would not grind the food."

Teacher. "Now what do we use to grind corn with?"

Pupil. "Millstones."

Teacher. "And do they always grind smooth?"

Pupil. "No."

Teacher. "Why not?"

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* The chalk and black board should be made use of in all branches of teaching. In any difficulty the teacher should be able to sketch off a diagram, and thus explain the matter by the sense of sight. He might also, as in this case, test the correctness of the boys' knowledge, by requiring them to draw the object.

Pupil. "Because some are of that sort of stone that has one substance in it harder than another, and when the soft wears away, the harder portions remain, making the surface rough."

Teacher (exhibiting a bullock's tooth).[*] "Now, here is a bullock's tooth; you see the enamel is in crescent-shaped ——"

Pupil. "Ridges."

Teacher. "The enamel goes down into the body of the tooth; then, as the grinding goes on, which part wears away first?"

Pupil. "The ivory between the enamel."

Teacher. "And leaves the enamel ——"

Pupil. "Higher."

Teacher. "And keeps the tooth constantly ——"

Pupil. "Rough."

Teacher. "Tell me some other animals you have been reading about that have very different sorts of teeth."

Pupil. "The gnawers have the enamel only in front."

Teacher. "Why?"

Pupil. "That by the ivory, which is softer, wearing away, the tooth may be constantly sharp."

Teacher. "Some other animals."

Pupil. "The back teeth of the flesh-eaters cross each other like scissors."

Teacher. "Why?"

Pupil. "Because they only require to tear or cut their flesh, not to grind it."

Teacher. "But what sort of motion must the jaw of the ruminant have in order to grind his food?"

Pupil. "A sideways motion."

Teacher. "Have you seen this motion?"

Pupil. "Yes."

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[*] Whenever it is practicable, the object under consideration should be exhibited; and it is particularly desirable that a collection of objects should be made in every school that would tend to

Teacher. "When?"

Pupil. "When a cow was lying on the grass."

Teacher. "But cannot all animals move their jaw the same way?"

Pupil. "No; the flesh-eaters can only move it up and down."

Teacher. "Like ——"

Pupil. "A pair of scissors."*

Teacher. "What other motion of the jaw do you remember?"

Pupil. "The gnawers cannot move it at all sideways, but thrust it forward and backward a little."

Teacher. "Like what?"

Pupil. "A saw."

Teacher. "But what is it that these ruminants can do that especially distinguishes them from other animals?"

Pupil. "They can chew the cud."

Teacher. "What is this power said to be to them, as it belongs only to them?"

Pupil. "A peculiarity."

Teacher. "Give me the root of that word."

Pupil. "Peculium, one's own property."

Teacher. "What do you mean by chewing the cud?"

Pupil. "Bringing back the food to the mouth to be chewed over again."

Teacher. "Another word for chewed."

Pupil. "Masticated."

Teacher. "As these animals can do what others cannot,

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illustrate the reading lessons. Such a collection, properly labelled to match the pages of the reading lessons, would secure accuracy of perception, and be a great saving of time. These would make the best object lessons.

* At this point it would be necessary for the teacher to put many of these questions over again, to ascertain that there has been a perfect comprehension of the subject.

they must have something which others have not. What is that?"

Pupil. "They have four stomachs."

Teacher. "What is the use of these four stomachs?"

(*Pupils do not answer.*)

Teacher. "After the food has been a little chewed, it is passed into the first stomach, sometimes called the paunch, where it is a little softened; from that it goes into the second, where it is formed into balls; the animal, when it pleases, brings it into the mouth again, where it is further chewed: the animal then swallows it a second time, not into the first stomach, but into the third, where it is a little digested; and it then passes into the fourth stomach, where the digestion is completed."

(*Teacher repeats questions. What is the first stomach called?*)

Teacher. "Which stomach is the largest?"

(*Pupils silent.*)

Teacher. "The first. But when is it of no use?"

Pupil. "Before the animal eats grass."

Teacher. "Well, this stomach does not become large till that time. What helps these animals in the digestion of their food, beside these stomachs?"

Pupil. "They have very long intestines."

Teacher. "Why do they need such long intestines?"

Pupil. "Because vegetable food requires to be kept longer in the body than animal food."

Teacher. "Then what sort of animals have short intestines?"

Pupil. "Those which live on flesh."

Teacher. "The term for these?"

Pupil. "Carnivorous."

Teacher. "Name some animals."

Pupil. "The lion, the eagle."

Teacher. "Of what use are the fore feet to ruminating animals?"

Pupil. "To support them."

Teacher. "Are the fore feet of any other use to *other* animals?"

Pupil. "Yes."

Teacher. "What?"

Pupil. "In some they are used to catch and hold the prey."

Teacher. "Give me an example."

Pupil. "The lion, and all the cat kind."

Teacher. "What other uses?"

Pupil. "Some use them for holding by."

Teacher. "As the ——"

Pupil. "Monkeys."

Teacher. "Any other use?"

Pupil. "Some use them to burrow with."

Teacher. "As the ——"

Pupil. "Rabbit."

Teacher. "What are the feet of ruminants composed of?"

Pupil. "Of a hard, horny substance."

Teacher. "Hollow?"

Pupil. "No, solid."

Teacher. "Into how many parts is the foot divided?"

Pupil. "Two."

Teacher. "What are these animals called in consequence?"

Pupil. "Cloven-footed."

Teacher. "What do you mean by cloven?"

Pupil. "Cut, slit, cleft."

Teacher. "How many families are in this order?"

Pupil. "Two."

Teacher. "What are they?"

Pupil. "Hornless and horned."

Teacher. "What do you mean by hornless?"

Pupil. "Without horns."

Teacher. "Give me some other words ending in less."

Pupil. "Lifeless, leafless, heartless," &c.

Teacher. "And these mean ——"

Pupil. "Without life, without leaf, without heart."

Teacher. "Name some animals belonging to the hornless family."

Pupil. "The camel, the musk."

Teacher. "Point them out."*

Teacher. "Some belonging to the horned family."

Pupil. "Deer, sheep, goats, antelopes, giraffes, and oxen."

Teacher. "Point them out."

Teacher. "What is said of these animals with regard to man?"

Pupil. "That they are more useful to him than any others."

Teacher. "Of what use are they?"

Pupil. "For food."

Teacher. "What part of them?"

Pupil. "The flesh, the milk."

Teacher. "Give some examples of those whose flesh is eaten."

Pupil. "The cow, sheep, deer."

Teacher. "Name some whose milk man uses."

Pupil. "The cow, reindeer, goat."

Teacher. "Of what other use are they?"

Pupil. "As beasts of burden."

Teacher. "Give me an example."

Pupil. "The camel."

Teacher. "Name another use."

Pupil. "Beasts of draught."

Teacher. "Give examples."

Pupil. "Ox, reindeer, *horse*."†

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* Some plate containing representations of the principal kinds of animals should be presented to the boys for this purpose.

† This error is introduced to show how it should be corrected: not merely by stating that it is an error, or even telling what is right, but by showing in what the wrongness consists. Further

Teacher. "Is horse right?"

2nd Pupil. "No."

Teacher. "Why not?"

Pupil. "Horses do not chew the cud."

Teacher. "How might you know from the form of the horse that he is not a ruminating animal?"

Pupil. "By his hoof."

Teacher. "How does it differ from that of the ruminants?"

Pupil. "It is undivided, while that of the ruminants is cloven."

Teacher. "Well, of what other use are ruminants?"

Pupil. "Their covering makes our clothing."

Teacher. "Give me an example."

Pupil. "The sheep, the goat, the camel."

Teacher. "Name any other use."

Pupil. "Their skins are made into leather, their fat into candles, their horns into knife-handles."

Teacher. "Seeing these animals are so useful to man, where may we expect to find them?"

Pupil. "Wherever man is."

Teacher. "Tell me the ruminants of hot countries."

Pupil. "The antelope, the giraffe, the llama."

Teacher. "Of the temperate regions."

Pupil. "The ox, the sheep, the deer, the goat."

Teacher. "Of very cold countries."

Pupil. "The reindeer."

Teacher. "What does so wide a scattering of these useful animals teach us about our Creator?"

Pupil. "That he cares and provides for man."

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questions might be asked as to why he thought the horse was a ruminant; when the boy would probably say, "It eats grass." The error having been then traced back, a false association might be easily removed by showing that though all ruminants eat grass, all animals that eat grass are not ruminants.

Interrogation used in every branch of teaching.

34. By means of questions, a test is constantly applied as to the degree in which any subject is understood, and facilities are afforded for explanation of difficulties, as well as for the imparting of information *connected with*, though not actually forming a part of it. Interrogation is, therefore, made use of in *every branch* of teaching. In connection with reading, it is, however, especially important. The good teacher will find it necessary generally to bestow *more time* on the explaining of a lesson by questions, and in imparting such incidental information as may be naturally associated with it, than in the mere mechanical exercise of reading.

Two classes of questions employed.

35. The questions employed, whether in class or during a gallery lesson, are of two kinds—explanatory questions, and questions of examination. The first are used during the progress of the lesson; the second, for the most part, at the end of it. The teacher makes use of *explanatory questions* in order to lead the children, by short and easy steps, to work out the subject of the lesson for themselves. By their aid he stimulates the minds of his pupils to continued active and healthy exertion, and makes them co-labourers with himself in the work of education, instead of being listless *hearers* only; and while he supplies them with facts, where really necessary, he carries them forward through a rigid and carefully built up course of induction to the goal which he has throughout the lesson kept clearly in his own view.

Sometimes questions of examination are employed *at the commencement* of a lesson, in order to ascertain what knowledge the children already possess on the subject of it, so that the teacher may come down to their level, and adapt his instruction to their actual wants. They are used *at the end*, when he wishes to ascertain how far they have really understood what has been going on, and how much of it is laid up in their memory, so as to be available for future use.

Rules to be observed in interrogation.

36. The following rules should be observed in the use of interrogation:—

(a.) The questions and answers, when put together, should present the subject as a connected whole; hence questions should follow each other in logical order.

(b.) Simple language should be used, such as will convey the meaning of the question clearly to the pupil's mind; hence every question should be definite.

(c.) It is not wise to tell a *part* of the answer, such as the first word, or any other part of it.

(d.) Questions which require or admit a simple *yes* or *no* as an answer should be avoided.

(e.) The minds of *all* the class should be kept at work; the answers should not be taken from a *few* only.

(f.) Wrong answers should be frequently noticed; they point out *where* the teacher's attention is wanted. The class should be questioned into the right answer, not told it.

(g.) Care should be taken to ascertain whether the answer given to a question shows a clear and distinct idea; if not, further explanations should be given, and more questions put. A few ideas clearly and distinctly worked into the minds of the children are better than many misty and indistinct ones.

(h.) The *language* of the answers ought to be good; inaccuracies should be pointed out, and answers which are only *partly* correct rectified.

37. The method of ellipsis is also used both during the progress of a lesson, and for the purpose of recapitulation. When employed while the lesson is proceeding, it is useful as a relief to the questioning, and as a means of testing the attention and comprehension of the pupils; when used at the close, it furnishes a convenient method of summing up the substance of the information imparted.

Rules for the use of ellipses.

The principal rules observed in using the ellipsis are these;

(a.) Ellipses should be *mixed with* questions.

(b.) Questions should never end in ellipses.

(c.) If an ellipsis be filled up incorrectly, the children should not be told, but be led by questions, illustrations, and other ellipses, to the truth.

(d.) Ellipses for younger children should be shorter than those for elder ones.

(e.) Ellipses should be such as the children can be expected to supply.

SECT. 6.—CLASS TEACHING—SPELLING.

Method of teaching.

38. SPELLING is taught chiefly *in connection with reading;* all the difficult words occurring in the first book being spelt previous to the reading of the lesson.

In the *second lesson book* there is a list of words *connected with* the lesson, though not always occurring in it, which are treated in the same way.

In the *third* and *fourth* books all the difficult words occurring in a lesson should be spelt *after* the lesson has been read, in the course of interrogation. The meanings should also be required, and the etymologies of such words given as tend to make the explanation clearer. This spelling and explaining of words found in sentences is much more effective than learning columns by rote that have no relation but that of juxtaposition.

Use of dictation lessons.

39. Another mode of teaching spelling is by *dictation.* This is of two kinds. Either the teacher of a class spells a word, and the boys write it after him; or, as in the advanced classes, the teacher reads a few sentences from some book, without spelling any of the words, and the boys take them down. These sentences are then looked over, and the errors marked, which the boy is required to correct. This last is found to be a valuable exercise; but the value depends, in a great degree, on the boy actually *writing the*

words correctly that he had before written wrong. The master or teacher must not be satisfied with merely pointing out the error. The first kind of dictation is practised every school-time in the lowest classes; the second only occasionally, in the higher classes.

Spelling in columns.

40. A third mode of teaching this exercise is by the tabular lessons, or spelling columns of Lesson Book, No. II., when each boy in his turn spells a word, the monitor conducting the exercises generally in the same way as with the Reading Lessons.

The abstracts of gallery lessons, which the elder boys are frequently required to write at the close of the lesson, is another mode of testing and improving their spelling.

A part of hom lessons.

41. In addition to these methods, all, except the youngest children, make spelling a part of their home lessons. Two or three times a week those in the middle classes are expected to bring ten or a dozen words written down on paper or slate, and syllabically divided; while the elder children bring either a written account of some object or animal previously specified, or the abstract of the last collective lesson which they have attended. Attempts at composition by the more advanced children further test and improve their spelling, whether the exercises are entirely original, or taken from the more systematic series found in Dr. Cornwell's "Young Composer."

Sect. 7.—Class Teaching—Writing.

Classification.

42. The children, when writing, are seated and arranged according to their sectional division, and they are subdivided into desks according to their proficiency in the art (chap. i., § 4). The forms of the letters, the mode of sitting, the manner of holding the pen, and the *principles* of writing, are learnt in the lower sections, the pupils practising on slates.

Straight strok and curve.

43. The *straight stroke* is first introduced, and its uniform thickness, slope, and varying lengths pointed out;

then the upper and lower ties; and then the place of the dot over the *i*. Such words as *tin* or *pit* are then written on the black board for practice.

After these ***the curve*** is explained, and the letters *o*, *c*, *e*, *a*, *d*, *g*, formed; these are each taken up in turn, and their correct formation shown. Words formed by these letters, and the elements given in the preceding lesson, serve as exercises at this stage.

The remaining portions of large text letters are treated in the same way. Then the capitals are given, classified according to their similarity of form, with instructions as to their height and breadth; and then numerous exercises are written on the black board to be imitated by the children.

Holding the pen.

44. During the whole of this preliminary course, and indeed whenever the children are occupied in writing, the proper mode of holding the pencil or pen is particularly insisted upon, as well as the right position of the body, fingers, and book. A diagram, showing a hand with the pen and fingers in their proper position, is placed on the wall of the writing division, as a model to which attention is frequently directed. The teacher also instructs his pupils by holding a pen in his hand in front of the section, and then calling attention to ***the manner*** in which he holds it, whenever such a course appears necessary.

Writing in copy-books.

45. When the children have gone through this course, and have learnt to write freely and correctly on slate, they are allowed to write in copy-books. The same mode of classification is employed as in slate writing. A monitor is appointed to give out copy-books, pens, and copy-slips, where these are used. (It is better, however, to use books which have copies engraved in them, as this saves much time and prevents confusion.) When the books and pens are distributed, the writing commences at the word "Begin!" The teacher then moves from desk to desk to preserve order in the section, pointing out errors, or getting the children to discover them by comparing their own writing with the

copy. Sometimes he takes a boy's copy-book to the front of the section, imitates on the black board the malformations of letters or words which he finds in it, and then questions as to where the errors are. He then places by their side the correct forms, and shows their superiority. By this method he keeps up a knowledge of the principles and elements learnt in the lower sections.

46. At the close of the writing lesson the general superintendent of order commands, "Writers!"—"Finish lines!"—"Clean pens!"—"Lay down pens!"—"Hands down!"—"Collect pens!" The monitor collects the pens of the section, and takes them to the place where they are to be kept until the next writing lesson. (It is recommended that each boy keep a small pen-wiper in his pocket on which to clean his pen.) The writing is then inspected by the teacher, the superintendent commands, "Shut books!"—"Collect books!" and the books are collected by the monitor, tied between small wooden boards, and taken to the place assigned for their reception.

Maxims to be kept in view.

The maxims recommended to masters in this department are, 1. Regard *quality* rather than *quantity;* and, 2. Aim rather at making a knowledge of writing *general*, than at producing *excellence* in a *few* of the senior pupils.

SECT. 8.—CLASS TEACHING—ARITHMETIC.

Cultivation of the mental faculties.

47. ARITHMETIC is taught to the *younger* children both in the gallery and at the draft stations; as children advance in the practice of the art, it is, however, found impossible to secure a sufficient number at the same stage of progress to form a gallery; it is therefore taught to those more advanced sections at the draft stations alone. The great *object* sought to be attained in teaching this branch is, the cultivation of the mental faculties, by the impartation of such a knowledge of the powers and properties of numbers, and of the principles and rules of arithmetical science, as

shall, when combined with facility in its operations, enable the pupils to solve any questions which may occur in after life with intelligence, correctness, and dispatch.

First ideas of number.

48. It is impossible, in a manual like the present, to describe in detail all the methods employed to impart a thorough knowledge of so important and extensive a subject. All that can be done is to indicate the general principles on which the instruction is founded.

The first ideas of number are given in the gallery. The ball frame is placed before the pupils, and they are taught to count the balls on the first wire; then their fingers, buttons, panes of glass in the schoolroom window, or the seats on the gallery. They are also taught to add, to multiply, to subtract, and to divide small numbers. Thus, sensible objects are made the medium of communicating their first ideas of number.

Preparation for abstract ideas.

49. As the children become familiar with these operations, the number is increased; they are taught to count and work questions mentally with the balls on *two* wires; then on *three*, and so on, until they are familiar with the whole frame. The same exercises are also gone through with beans, buttons, and similar objects, so as to prepare the way for the *abstract idea* that the *result* of an arithmetical operation is not affected by the articles which are the subjects of calculation; thus, six cows and five cows make eleven cows, and six buttons and five buttons make eleven buttons; hence, $6 + 5 = 11$.

First four rules.

50. As the instruction proceeds, it becomes more definite and methodical, though continued for some time longer without the use of figures. Addition is first explained, and simple exercises worked, either on the ball frame, with beans, or by means of strokes drawn on the school slate. Then multiplication is taken up, and its connection with addition shown. Subtraction and division are treated in the same way; and towards the close of the course, Arabic and Roman numerals are explained, the principle of the

local values of figures brought out, and easy examples worked in both systems.

Further exercises.

51. While this course is gone through in the gallery, the children are exercised in their drafts on very simple questions in the tables, and in mental arithmetic; correctness and dispatch being always required.

The children are also employed at their writing desks during this course in *copying* and learning the names of the Arabic and Roman numbers; not so much for use at this stage, as for exercises on form, and to facilitate future progress.

Rules deduced from examples.

52. In prosecuting the study of *written arithmetic* in the middle and upper sections, every rule is preceded by a lesson upon the principle on which it is founded. Instead of giving rules first and examples afterwards, the rule is deduced from examples. While questions involving abstract numbers are by no means excluded, the majority of the exercises are given on subjects occurring in the every day life of the children. A great number of examples of this kind are found in Crossley's "Intellectual Calculator," a copy of which is placed in the hands of every teacher of a draft: each child, also, in this part of the school, should have a copy for home and individual practice. The number of children in the school—of bricks in any wall which the boys may have seen building—the population of the town, the county, or the country—all furnish abundant questions for practice. Lessons on the principles of arithmetic are also given at stated periods from De Morgan.

Dispatch to be promoted.

53. In order to promote a business-like dispatch in obtaining the answer to a question, the teacher sometimes writes a sum on the black board, and pointing to it, says, "The quickest." Each boy copies the figures as rapidly as he can, solves the question, and exhibits the result to the teacher, who, with a glance, compares it with the key, and says, "First," "Second," or "Third," according to

the order in which they correctly exhibit. This method will always be a favourite one with quick boys, and is in several respects really advantageous. It is pursued in every class after the first.

Particular attention is paid to *numeration* throughout these sections, some portion of time in every week being specially devoted to it; and the questions and answers, in all cases, whether read by the teachers or pupils, are given according to their *local* value; thus, 9824 would be given as nine thousand, eight hundred, and twenty, and four; not nine, eight, two, four.

Variety of methods used.

54. The ordinary method of class instruction is as follows:—The boys being arranged, the monitor distinctly announces the question: if complicated, he repeats it once or twice; then pausing to allow time for its being understood, he says, "Begin;" and each boy eagerly strives to work it out and present his slate first for approval. If right, and first, the monitor says, "First;" to the next boy, "Second;" and the draft is instantly, as it were, sifted, the slow or inefficient being at the bottom. Copying is not practicable.

As soon as all have completed the operation, the teacher interrogates, thus—"What have you done?" "How?" "Why?" "Any other way?" &c.; and their knowledge of the principles on which the rule is founded is thoroughly examined. This examination is a very productive exercise, and should seldom be omitted; for as it rarely happens in long solutions that the pupils obtain their results the same way, the replies to these questions often elicit much valuable remark respecting the principles upon which their particular calculations are founded.

It is to the variety of methods used in obtaining the results, coupled with the pupil's subsequent reasoning on the correctness of the principles which he has selected, that we look for proof of the reality of his attainments.

Rules used suggestively.

55. Rules in the central school are introduced rather as suggestions, when the difficulties of the question are

thoroughly understood, and have baffled the pupil's ingenuity; he is then gradually led on by a succession of questions, till the whole truth breaks upon his mind with a clearness and beauty which form the best incitement to renewed investigation. Arithmetic, thus taught, becomes a fine mental discipline, and strengthens the intellectual powers, instead of resting only on the memory.

Contracted methods encouraged.

56. There are two points of obvious importance, which respect the mere working out of the question, viz., correctness and dispatch. The attainment of the latter is, generally, a matter of great difficulty; yet without it the experienced arithmetician is often plainly deficient in buying and selling, and in transacting affairs where ready calculation is required. To supply this defect, not only are contracted methods on slate encouraged, such as bringing any number of tons, hundredweights, quarters, and pounds, into pounds in one line,—working by aliquot parts and approximations,—or calculating part of a question abstractedly, and part on the slate; but a great variety of questions are given specially for pure mental solution.

Study of the tables.

57. Great attention is paid to a ready knowledge of ARITHMETICAL TABLES, since without this, arithmetic is almost useless in its practical application. In all, except the lowest section, portions of the tables are daily given to be learnt at home, for examination when the children return to school. This desirable but difficult object will also be promoted by having them said or sung during the various evolutions of the school, especially when going from and into the desks. As this occupies some portion of each school time, they will be easily learnt. This repetition does not, however, supersede the necessity of *rapid, irregular* questioning upon them; as boys are frequently able to repeat a table from beginning to end without being competent to apply any part of it when required. The repetition of tables during changes should not, however, be *always* allowed; it is useful as a matter of

discipline to require boys occasionally to walk with perfect quietness; while at other times school pieces may be sung.

The tables of money, weights, and measures, are first introduced in the gallery. Here the actual objects about which the tables are formed are as far as possible exhibited. Long, square, and cubic measures, are shown in their connexion with length, breadth, and thickness; and the pupils are required to measure the schoolroom gallery and other things by which they are surrounded, and then to announce the results in different denominations. In like manner, when treating of measures of capacity, a pint or quart are shown, and made the subject of various calculations.

Mental arithmetic in every section.

58. MENTAL ARITHMETIC is taught in every section of the school, and in every draft, and proceeds from the simplest questions, involving no more than a knowledge of the tables, to very complex and difficult operations. The work of each draft is so arranged, both in tables and mental arithmetic, as to form an introduction to the written arithmetic of the next draft.

As the children proceed, they are exercised in forming numbers by the addition of other numbers, as $12=(4+5+3)=(7+3+2)=(6+5+1)$; $16=(2+3+4+5+2)=(4+5+6+1)$, &c. Also in finding the factors of numbers, as $18=(2\times9)=(3\times6)$; $36=(4\times9)=(6\times6)=(9\times4)=(12\times3)=(18\times2)$; in discovering the common multiples and common divisors of small numbers; and in the combination of different rules,—such as taking a number from the sum of three others, multiplying the remainder by a given number, and dividing the product by another. In this way, they are exercised mentally on the various properties of number, and the principles applicable to it, before they are introduced to the more difficult and extended processes of written arithmetic.

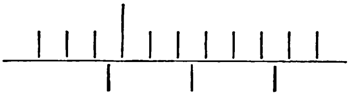
Formation of fractions.

59. Before entering on the study of division, the children are put through an elementary course of fractions. The formation of fractions, their notation, and the altera-

tions in value caused by changing the numerator, the denominator, or both, is drawn from the pupils; the *principles* on which reduction, addition, subtraction, multiplication, and division of fractions depend, are explained; the rules are deduced; and the pupils are then required to show the reason for every operation which they perform. The questions brought forward at this stage are of the simplest kind, the object being rather to give *ideas* and *principles* than to produce dexterity. The subject is more fully taken up afterwards in the "Calculator."

Illustrations by chalk lines.

60. Various objects are operated upon in teaching this preliminary course. A line drawn with chalk on the black board affords perhaps the readiest illustration. Suppose the pupils were asked, "What is the difference between $\frac{1}{3}$ and $\frac{1}{4}$?" and could not answer, the teacher would draw a line thus, divided into quarters—



He would then say,

"How many parts is the line divided into?"

Pupil. "Four."

Teacher. "What then is each part called?"

Pupil. "A fourth."

Teacher. "Or ——"

Pupil. "Quarter."

The teacher would then divide each quarter into three equal parts, and would say to some boy, "Count how many parts."

Pupil. "Twelve."

Teacher. "What then is each part called?"

Pupil. "One-twelfth."

Teacher. "As there are twelve twelfths in the whole line, how many are there in the third of the line?"

Pupil. "Four."

The teacher, after marking off four of the parts, says, "What have I marked off?"

Pupil. "Four-twelfths."

Teacher. "Which are equal to ——"

Pupil. "One-third."

Teacher. "Now show me one-quarter of the whole line —now one-third of the whole—now show me the difference between one-quarter and one-third—well, what part of the whole line is that?"

Pupil. "One-twelfth."

Teacher. "Why?"

Pupil. "Because there are twelve such parts in the whole line."

Teacher. "And when anything is divided into twelve equal parts, each of them is called a ——"

Pupil. "Twelfth."

Teacher. "Then what is the difference between one-third and one-fourth?"

Pupil. "One-twelfth."

The *term* fractions should not be used in this stage of advancement.

Properties of proportions explained.

61. In like manner simple proportion is preceded by a course of mental arithmetic, explaining the properties of ratios and proportion, especially exhibiting that on which the common "Rule of Three" is founded. Questions are then given, the answers to which can be obtained, or the road to them shortened, by dividing or multiplying one or more of the terms, and the principles on which these operations are founded are shown. By this method the children are prepared for the study of proportion in their books, and their intelligent comprehension of the questions found there is facilitated.

Advance to difficult questions.

62. In all these drafts much scope is allowed to the pupil teachers beyond the line of questioning just referred to. They are at liberty to vary the questions to any extent, so long as the attention of the boys is kept up. Such

questions as these constantly occur: "What is the value of a dozen articles at 3*d.*—at 4½*d.*—at 9¾*d.*—or at 1*s.* 5½*d.*?" or, "What is the value of any number of dozens or grosses?" or, "What is the square of 4,—or 1,—or 6,—or 9?" &c.

In the more advanced drafts the questions become much more difficult, and include the following range: "What is the square of 27, of 53, of 225?" &c. "What does 7 cwt. 3 qrs. of any article come to, at 1*d.* per lb., or at 9¼*d.* per lb.?" "What will 37, or 75, or 139, or 3185, or any other number of articles amount to, at 2½*d.* each, or at 5¼*d.*, or at 8½*d.*, or 3*s.*, or 7*s.* 6*d.*?" &c., &c. "In 35 yds. 3 qrs. of cloth, how many English, French, or Flemish ells?" "Reduce 4*s.* 8¾*d.* to the fraction of a pound sterling; or 9¼*d.* to the fraction of a crown; or 3 qrs. 15 lb. to the fraction of a cwt. or ton." "Multiply ⅔ of $\frac{4}{6}$ by ½ of ⅓ of 1½." "Add ⅝ of a shilling to £⅗." "Reduce 12*s.* 6½*d.* to the decimal of a shilling or pound sterling." "What is the interest of £251 10*s.* 6*d.*, at 5 or 6 per cent., for a number of years and months?" To these might be added a large proportion of the questions usually found in most books of arithmetic.

§ 9.—CLASS TEACHING—GRAMMAR AND COMPOSITION.

Expression of thought by children.

63. English composition, mental or written, precedes and accompanies the study of English grammar throughout the whole school.

In the lower sections mental composition is taught so as to enable the children to express their thoughts correctly, and at the same time to form an introduction to the study of grammar.

Method of teaching it.

64. The youngest pupils are taught composition in the gallery. In the first lesson they are asked to mention the *names* of some of the objects which they see around them, and to spell them, as *desk*, *slate*, *book*, or *wall.* These names are written in a vertical column on the school slate.

The pupils are then required to put a word before each noun, expressing its colour, or some other quality belonging to it, as *grey* slate, *wooden* desk, *new* book, *white* wall. The words grey, wooden, or new, are then successively spelt, and the teacher writes them before the words which they severally describe. The children in the gallery are then asked, if they can express the meaning of the phrases, such as *grey slate,* in another way. The sentences, "the slate is grey," or "the wall is white," are thus brought out, and written down. Other names are then given and treated in the same manner. This is generally found to be enough for one lesson.

Modifications of thought explained.

65. In the same way, at succeeding lessons, the names of objects are mentioned, qualities are added, and actions which they can perform are specified; the sentences being constructed, and the words spelt, by the children, and then written down by the teacher before the gallery. Then follow questions as to *how* and *when* these actions may be done, and the differences in the *kinds* of actions. As the pupils advance, the effect produced in a sentence by taking a word from it, or adding one to it, is elicited from them by interrogation. Thus the various modifications of which a *thought* is capable, and the distinctive offices of the various words in a sentence, are impressed upon the children's minds, and wrought out in their practice, before a single technicality of grammar is placed before them. Hence when they commence the study of grammar they are prepared to understand that the distinctions existing among the words of a sentence are not arbitrary, but have their origin in the nature of language itself.

Elements of grammar involved.

66. At this stage of progress the regular study of grammar is commenced, and it is considered an advantage that, in the earlier steps of this study, the knowledge previously obtained is again brought under the notice of the pupils, though in a different form. The teacher commences by saying, in as clear a manner as possible, that every word in

the language, like every pupil in the school, belongs to some class. Stopping some seconds to ascertain that this simple fact was well understood, he might remark that the only difference is, that there are eight classes of pupils in the school, but nine classes of words. This would be followed by saying,

Teacher. "Tell me the names of any things you see."

Pupil. "Desk, slate, inkstand, box, pen."

Teacher. "Tell me the names of some things you saw in coming to school."

Pupil. "Horse, cart, house, boy."

Several being mentioned, the question would be put, "What have you told me about these things?" *Ans.* "Their names." Now the teacher would observe, "All these names which you have mentioned belong to one class; the name of that class is *Nouns;* all names belong to it, for the word Noun means Name. A noun, then, is the name of any person, animal, place, or thing." Here it should be observed, that neither the term nor the definition is given till the thing itself is understood. Throughout this and every other study the necessity for the term should be felt before it is supplied.

Exercises on nouns.

67. After the pupils have furnished a number of nouns for themselves, the teacher should write out the sentences under the nouns as found in the grammar. He should then require each pupil in his turn to point out the nouns occurring in the sentences, which he should then underline. Thus, after having written out the first sentence, "The father sent John into the garden," he would say to the first pupil,

"Point out a noun."

Pupil replies. "Father."

Teacher. "Why is father a noun?"

2nd Pupil. "Because it is the name of a person."

Teacher. "And a noun is ——"

3rd Pupil. "The name of any person, animal, place, or thing."

The teacher would then underline the word "Father," and say to the next pupil, "Another noun."

4th Pupil. "Boy."

Teacher. "Why is boy a noun ?"

5th Pupil. "Because it is the name of a person."

The word "Boy" would then be underlined.

Teacher. "A noun is ——"

6th Pupil. "The name of any person or thing."

Teacher. "Give me another noun."

7th Pupil. "Garden."

Teacher. Why is garden a noun ?"

8th Pupil. "Because it is the name of a thing."

Teacher. "A noun then is ——"

9th Pupil. "The name of any person or thing."

The word "Garden" would then be underlined. All the sentences in that exercise should in succession be written on the black board by the teacher, and treated in the same way.

Exercises on adjectives.

68. The teacher would next ask the pupils again to name some nouns, and singling out one named that would best answer his purpose, "boy," for instance, he would write it down on the black board.

Teacher. "But are all boys alike ?"

Pupils. "No."

Teacher. "Some are ——"

1st Pupil. "Strong."

2nd Pupil. "Tall."

3rd Pupil. "Good."

4th Pupil. "Bad."

Teacher. "Well, what do all these words, *strong*, *tall*, *good*, *bad*, tell us ?"

Pupil. "Something about the boy."

Teacher. "Yes, but what ?"

Pupil. "What sort of a boy he is."

(The teacher might then hold up his book and say, "Tell me anything you can about this book.")

1st Pupil. "It is a small book."

2nd Pupil. "It is clean."

3rd Pupil. "It is useful."

4th Pupil. "It is printed."

Teacher. "These words, *small, clean, useful, printed,* tell us ——"

Pupil. "What sort of a book it is."

Teacher. "Well, all such words as these are called Adjectives. An adjective, then, is a word that shows the quality of a noun."

The teacher would then turn to the exercise on adjectives in Cornwell's "Grammar for Beginners," and write out the sentences under it, and, as in the nouns, require the boys (1) to point out the adjectives, (2) to give the reason for their being so called, and (3) to repeat the definition. The adjective in the exercise would be underlined by the teacher. One of the adjectives, *strong,* for instance, would be written before the noun *boy* on the black board.

Articles and verbs.

69. He would now hold up some object, and say, "What is this?"

Pupil. "A slate."

Teacher. "What word did you use before slate?"

Pupil. "A."

Teacher. "What is this?"

Pupil. "An eye."

Teacher. "What did you use before eye?"

Pupil. "An."

Teacher. "What gives us heat and light?"

Pupil. "The sun."

Teacher. "What word did you use before sun?"

Pupil. "The."

Teacher. "If I were telling you about some boy who was strong, I should say he is ——"

Pupil. "A strong boy."

The teacher would here put *a* before *strong boy* on the black board.

Teacher. "Well, the words *an, a,* and *the,* are called articles. An article, then, is a word put before a noun, to show the extent of its signification."

Sentences from exercises on "the article" in the grammar would then be written on the board, and this part of speech would be pointed out, explained, and defined in the same way as the noun and the adjective.

The exercise would then proceed thus:—

Teacher. "Tell me anything you can do."

Pupil. "Run, walk, talk, eat, drink, learn."

Teacher. "What do all these words mean?"

Pupil. "Doing something."

Teacher. "Well, what have you seen a strong boy do?"

Pupil. "Jump, leap, wrestle."

(Teacher writes *jumped* after *strong boy* on the black board.)

Teacher. "Now all words that mean doing something are called Verbs."

(Here the usual definition is repeated.)

Exercises upon the verb would then follow.

Prepositions and adverbs.

70. Again taking up some object, the teacher would say, "What is this?"

Pupil. "A book."

Teacher. "And this?"

Pupil. "A box."

Teacher. "Where is the book now with regard to the box?"

1*st Pupil.* "On it."

2*nd Pupil.* "In it."

3*rd Pupil.* "Near it."

4*th Pupil.* "Over it."

Teacher. "What do these words, *on*, *in*, *by*, *over*, show?"

Pupil. "Where the book is with regard to the box."

Teacher. (Pointing to the words on the black board), "A strong boy jumped, where?"

Pupil. "Over the ditch."

Teacher. "Which word shows the place of the boy with regard to the ditch?"

Pupil. "Over."

Teacher. "Other words that would show the same."

Pupil. "Into the ditch, across."

Teacher. "All words that show the place of one thing to another are Prepositions."

The exercise on prepositions from the grammar would then follow, and the exercise proceed.

Teacher. "But when different persons are doing the same thing, do they do it all alike? Do all write alike?"

Pupil. "No."

Teacher. "Some write ——"

1st Pupil. "Well."

2nd Pupil. "Badly."

3rd Pupil. "Carefully."

4th Pupil. "Slowly."

Teacher. "What do all these words show?"

Pupil. "How the writing is done."

Teacher. "How might a boy jump?"

Pupil. "Timidly, courageously, fearlessly."

Teacher writes *fearlessly* in the sentence.

Teacher. "Words that show how a thing is done, or when and where it is done, are called ADVERBS."

The exercise from the grammar follows as before.

Sentences thu formed by th pupil.

71. The other parts of speech would be taken in the same way; till at last the teacher would have a sentence combining them all, as, perhaps, *A strong boy jumped fearlessly over the ditch: but indeed he almost fell in.* The advantage of making up a sentence in this way is, that it serves as a model sentence to the pupils, by which they can try others at a future time.

In this mode it will be observed that (1.) The pupils, by the judicious questions of the teacher, themselves supply a great number of the kind of word under consideration. (2.) The *name* is given by the teacher. (3.) The definition is read. (4.) The pupils select all words of the kind required from others in a sentence. (5.) Give an explanation. (6.) Repeat the definition.

Rules of Syntax.

72. As soon as the pupils have acquired the power of readily distinguishing the parts of speech, the teacher must return and take particulars of each; such as the number and gender of nouns, and kinds of verbs.

In Syntax, the rules should be educed by the pupils themselves, from observing the usage of the language. Thus, with a class commencing the first rule, the teacher would not dogmatically say, " A verb must agree with its nominative in number and person;" but would proceed somewhat in this way :—

Teacher. " What do you do every day before you come to school ?"

Pupil. " I eat my breakfast."

Teacher. " And what does he do ?"

Pupil. " He eats his."

Teacher. " Then we say he ——"

Pupil. " Eats."

Teacher. " But I ——"

Pupil. " Eat."

Teacher. " What, then, are *he* and *I* in the sentences ?"

Pupil. " Nominatives."

Teacher. " What difference is there in them ?"

Pupil. " *I* is the first person, and *he* the third."

Teacher. " Then nominatives of different persons ——"

Pupil. " Have not the same part of the verb."

Teacher. " But if I were telling some one the same about you all, what should I say ?"

Pupil. " They eat their breakfast."

Teacher. " What person is *they ?*"

Pupil. " The third person."

Teacher. " Is this like the third person singular ?"

Pupil. " No."

Teacher. " What is the difference ?"

Pupil. "He eats; but they eat."

Teacher. "Then nominatives of different numbers ——"

Pupil. "Have different parts of the verb."

Teacher. "Well, then, the general rule is this,—A verb agrees with its nominative in number and person."

Difficulties to be overcome.

73. The above is given as a sketch of the general mode of instruction with regard to this part of the subject. In practice, the teacher will often find that he has to put many more questions before the pupils will be able to draw the rule or inference. But if in some cases it is more difficult to teach the children to *think*, than "to learn," it must be borne in mind that the first is always incomparably more valuable than the second; that in fact this individual discernment of principles, and the mental vigour which is the consequence of it, are among the chief ends of intellectual education.

Derivation of words.

74. In teaching the derivation of words, free and extended use should be made of the black board. For example, if the teacher were explaining words derived from Anglo-Saxon roots, he would put down such roots under each other, forming one column, and the derivations to the right hand, forming another. Then, taking Dr. Cornwell's "Grammar," he might say, "Bugan" means "to bend." When this was written down, he would add,

"Tell me any words made from it."

(*Pupils silent, perhaps.*)

Teacher. "When one man bends to another, what do we say he does?"

Pupil. "Makes a bow."

Teacher. "An instrument we bend in order to shoot with, is called ——"

Pupil. "A bow."

Teacher. "That part of a tree which bends off from the trunk?"

Pupil. "A bough."

Teacher. "That part of a coast which forms a bend by the running in of the ocean?"

Pupil. "A bay."

2nd Pupil. "A small bay."

3rd Pupil. "A bight."

Teacher. "The bend of the arm is called ——"

Pupil. "The elbow."

Teacher. "The other part of elbow is derived from the word *elne,* meaning an arm."—These words would be written down as they were mentioned; and then another root written under *bugan,* and derivatives discovered by the pupils from it in the same way.

The board would present this appearance at the close:—

Bugan ... to bend ... bow, bough, bay, bight, el-bow (elne, an arm).
Ceapian... to buy ... chop (chop and change), chaffer, cheap, chapman, Cheapside, Chepstow (stow, a place).

The pupils should, in all cases, find out the derivatives for themselves, if possible. If any difficulty is experienced, the teacher should refer to the prefixes or affixes, which will generally remove it. Thus, if the derivatives from *traho,* I draw, *tractus,* drawn, were sought, the teacher might ask the question, "What prefix means '*together*'?"

Pupil. "Con."

Teacher. "Then to draw together is ——"

Pupil. "To con-tract."

Teacher. "What stands for '*separation*'?"

Pupil. "Dis."

Teacher. "Then to draw aside is ——"

Pupil. "To dis-tract."

Teacher. "What prefix means '*out*'?"

Pupil. "Ex."

Teacher. "Then to draw out is ——"

Pupil. "To extract."*

75. Lessons, and exercises on composition, from Cornwell's "Young Composer," accompany the study of grammar throughout the school, the exercises being *oral* in the gallery, and *written* in the desks. Grammar is taught only at the draft stations; while derivation and composition are studied in the gallery and at the desks, as well as in connection with the reading at the draft stations. Exercises on composition.

76. Besides lessons on composition, the elder children frequently have exercises given them to be written at home in the evening, and brought next morning for examination and criticism. Sometimes they are required to write all they know about an animal, as a cow, a dog, or a lion. At other times a familiar object is chosen, as a knife, or a kettle; while occasionally they are expected to answer questions in writing on some one of their school studies, or to bring an abstract of a recent collective lesson. In examining these papers notice is taken, not only of the composition, but of the spelling, punctuation, place of capitals, and the correctness and fulness of the information contained in them. This is found to be one of the most valuable exercises carried on in the school. Home studie

§ 10.—CLASS TEACHING—GEOGRAPHY.

77. GEOGRAPHY is taught to all the children, both in the lower and upper schools, in two distinct courses, proceeding parallel with each other. Mode of teaching physical geography.

The first relates to physical geography; the second to the study of maps.

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* A teacher who is not acquainted with Latin, should be extremely careful, in teaching the derivatives from that language, to get the *quantities* of the vowels, and the *termination* of the roots, correctly. By neglecting this, he may make himself ridiculous. He should indeed abstain from teaching any part of this branch, till he has himself studiously prepared and thoroughly mastered it.

In teaching physical geography, an explanation and definition of the different forms and appearances of land and water is first given. The idea of a plain is brought out by directing the attention of the children to *some level* piece of ground in the neighbourhood, from which other tracts, of larger extent and different appearances, are described to them. Then follow the ideas of a *swelling* of the ground, a hillock, hill, mount, mountain, which are treated in like manner. Starting from a plain again, the teacher gives to the gallery the ideas of hole, hollow, vale, valley, defile, and then draws out the definitions. In a similar way other definitions are taught, closing with a general recapitulation, at the end of which the pupils are expected to have obtained a tolerably correct notion of the general appearance of the globe.

Inductive gallery lessons.

78. As the course proceeds, the children are made acquainted, by means of simple and inductive gallery lessons, with the form of the earth, of which they are required to give proofs. To this is added latitude and longitude; the motions of the earth, and their causes; the great continents and seas, their general forms and relative proportions; mountains, and table lands, rivers, springs, lakes, plains, deserts, and volcanoes, each of which forms a separate lesson. Then follow lessons on the distribution of man, animals, and vegetables, over the earth's surface; the consideration of the earth as a part of the solar system; and the method of measuring a degree on the surface of the globe. The whole is closed by lessons on eclipses, tides, winds, currents, climate, meteors, and the geological structure of the earth's crust.

Study of maps—how commenced.

79. At the time when this course of instruction commences, another on Map Geography is also begun; one lesson every week being given in the first, and two in the second.

The study of *maps* is commenced by a lesson on the measurement of space, in which the children are taught to realize the idea of an inch, foot, yard, or mile, by reference to a foot rule; to the length and breadth of the school premises; and to the distance from the school to their homes and other well known places. Lessons are then given on the following subjects preparatory to the study of maps:—the cardinal and semi-cardinal points, by reference to the place of the sun at midday; plan of the schoolroom and its boundaries; relative positions of known objects; the schoolroom on different scales; plan of the neighbourhood; plan of London.

Notions of latitude and longitude.

80. The idea of latitude is introduced by drawing a line on the schoolroom floor from east to west; the teacher then asks,

"On which side of this line are you sitting?"

Pupil. "The *north.*"

Teacher. "On which side is that wall?"

Pupil. "The *south.*"

Other places in like manner are referred to on the same line, and the terms north and south latitude are given. The line from which latitude is really reckoned is then explained, and the fact disclosed that *we* are living in a northern latitude. Longitude is unfolded in a similar manner, by drawing a line from the north to the south side of the schoolroom.

Maps and charts introduced.

81. The first map introduced is that of the county is which the school is situated, when the knowledge already gained is brought to bear on the study of it. Next follows a map of the surrounding counties, then a chart of the river Thames, and then a map of England. When this part of the course has been fairly mastered, the children are taken to the map of the British Isles, to the study of which they devote about two months. The Eastern and Western hemispheres; the scenes of Sacred History; Europe, Asia, America, Africa, and Oceania, succeed. In these, the parts most intimately connected with England, such as Australia, Hindostan, the West Indies, and the United States of America, receive special attention. With those pupils

who remain in school a sufficient time to proceed beyond this point, a course of lessons on the map of the ancient world is adopted, embracing the main facts of Ancient History.

Physical features taught first.

82. In taking up the study of a map with a section of the school, the physical features should be taught first:—the great mountain ranges, plains, rivers, and lakes; then the political divisions; then the towns. The dependencies of the political and social geography of a country on its physical features should be constantly pointed out: as, for example, why our manufactures are travelling westward? why Liverpool has risen so rapidly to first rate importance as a port? why the capital of England is just where it is? In studying any particular country, however, before entering on details, its position with regard to the neighbouring states should be thoroughly understood by the pupils. Thus, if the country were Palestine, it should be first shown on a map of the world, and then on a map of Asia, the pupils pointing out the countries around it, and naming them. The teacher would then proceed with the physical features, in the order before mentioned; its divisions; and then its towns.

Skeleton maps to be filled up.

83. These particulars will be best taught by means of *large schoolroom maps*, the children being seated in the gallery and the teacher pointing to each place, as it is found in Dr. Cornwell's "School Geography," during the lesson. Skeleton maps, too, entirely without names, may be used with advantage in the drafts, provided the teacher is well acquainted with the map before him. The boys should also be occasionally furnished with slates, or with chalk and a black board, and be required to draw various portions of the world. Their acquaintance with a country may sometimes be tested, by requiring them to fill up these bare outlines, without seeing a map. Thus, the teacher might say, "Put down on the board Mount Lebanon, the Jordan, or Jerusalem."

Method of questioning on maps.

84. When a lesson has been gone through by the teacher on the skeleton map, mutual interrogation sometimes ensues; each boy in turn, beginning at the last, puts a question, and rises or falls in proportion to his skill in questioning, and the extent of his knowledge. The scope of the questions they are allowed to put is very extensive: they may propose questions on points of general history, or biography, which have not been mentioned by the teacher, but the knowledge of which they have attained by reading or conversation.

If we suppose the map to be Palestine, and Tyre to be the spot under consideration, some such questions as these would probably be put:—

Teacher. "Where is it?"

Pupil. "On an island."

Teacher. "Describe the situation of the island."

Pupil. "It is at the eastern extremity of the Levant, opposite the northern part of the Holy Land, from which it is separated by a narrow strait."

Teacher. "What occasioned its erection on an island?"

Pupil. "Its being attacked by Nebuchadnezzar."

Teacher. "For what was it remarkable?"

Pupil. "For commercial prosperity."

Teacher. "In what class of powers should we place it?"

Pupil. "Naval."

Teacher. "Was the second Tyre ever taken?"

Pupil. "Yes."

Teacher. "By whom?"

Pupil. "By Alexander the Great."

Teacher. "Cite a passage of scripture relating to that event."

Pupil. "Isaiah xxiii."

Teacher. "What is Tyre now?"

Pupil. "A place resorted to by fishermen to dry their nets."

Teacher. "The prophecy respecting this."

Pupil. "Ezekiel xxvi. 14."

Teacher. "To what power does it now belong?"

Pupil. "To Turkey."

Teacher. "What nation in modern times did it most resemble, and in what particulars?"

To such questions as these a more irregular but not less searching course of mutual interrogation ensues, as—

Teacher. "What city in Africa was founded by a colony from Tyre?"

Pupil. "Carthage."

Teacher. "How did Alexander's army approach the walls of Carthage?"

Pupil. "By a mole."

Teacher. "What city did he advance against, after taking Tyre?"

Pupil. "Jerusalem."

Teacher. "How long did Nebuchadnezzar besiege old Tyre?"

Pupil. "Nearly fourteen years."

Teacher. "How long did new Tyre detain Alexander?"

Pupil. "Seven months."

Teacher. "Mention the year in which Tyre was destroyed by Nebuchadnezzar, and also that in which it was taken by Alexander."

Pupil. "572 and 332, before the Christian era."

Teacher. "Why is it called the daughter of Sidon by Isaiah?"

Pupil. "Because it was built by the Sidonians."

Teacher. "Mention the prophecy which foretold its destruction by Nebuchadnezzar."

Pupil. "Ezekiel xxvi. 26 and following verses."

Teacher. "What chapter describes the sources of the wealth of Tyre?"

Pupil. "Ezekiel xxvii."

Teacher. "What prophecy was fulfilled after Alexander quitted Tyre?"

Pupil. " That it should be forgotten seventy years (Isaiah xxiii. 15)."

Teacher. "Where is the prophecy of Alexander's success at Tyre to be found ?"

Pupil. "In Isaiah xxiii. 11, 12."

These, and many other questions might be put and answered in much less time than this account is written. If the question be not prompt, or the answer ready, another boy quickly proceeds, or the teacher again takes the subject up. In this way all the information any one may possess will be elicited and communicated to the rest.

Incidental acquisitions in geography.

85. A very large amount of the knowledge gained in geography is acquired incidentally, in connection with the reading classes. Every place occurring in a Reading Lesson, whether in the Bible or the Lesson Books, should be pointed out on a map, and information relating to it should be imparted. Thus, if the children are reading that Alfred concealed himself in the island of Athelney, the teacher should put questions to bring out the following facts ; or, if unknown, he should state them. (1.) Athelney is in the west of England. (2.) In the county of Somerset. (3.) It is an island formed by the rivers Tone and Parret. (4.) It received its name Athelney (meaning Nobles' Island) because Alfred and his nobles here concealed themselves. In reading the 27th chapter of Acts, the ancient geography of the most important places eastward of Italy, on the northern and eastern shores of the Mediterranean, should in like manner be taught, in order to render the chapter intelligible.

Minute particulars to be regarded.

86. When this course of map geography has been so arranged as to give a tolerable notion of the various countries of the world, and of such particulars respecting them as are most necessary to be known during the far too limited period of school education, it is felt that there are some portions which require to be more minutely studied. With

this view *blank maps* of England, the British Isles, Palestine, and Europe, Australia, and the United States, have been prepared, and one of them is studied at each draft station during some one or other of the exercises in each week. This plan enables the teachers of the various sections to revise and fix the knowledge already obtained by the children during the collective lessons, as well as to extend their acquaintance with the particular parts of geography most likely to be useful to them.

SECT. 11.—CLASS TEACHING—MISCELLANEOUS LESSONS.

87. Enough, it is hoped, has been said to show *the methods* employed in the education of children at the central school. It will therefore be sufficient merely to specify the remaining subjects, and to point out what is communicated in connection with each.

Variety of subjects more or less taught.

88. *Courses of collective lessons* are arranged and given on English History; the Philosophy of Health; Natural History; Objects and Manufactures; the Philosophy of Common Things; and Political Economy. Reading lessons are also found on most of these subjects in the Daily Lesson Book, No. IV., and are studied in the middle and upper part of the school.

All that can be attempted in these branches is to give the pupil sound general views concerning them; to impart a desire for the acquisition of further knowledge; to exhibit the method of carrying on the study of each or all to the best advantage; and to make them instruments for developing a spirit of intelligent, humble inquiry concerning the works of God and the laws of their being.

English history.

89. In *English History*, the leading events of different periods with their causes and consequences,—the gradual development of the constitution of our country,—its trade, commerce, and literature, and the condition of its people at the various epochs of their history, are dwelt upon.

Philosophy of health.

90. In lessons on the *Philosophy of Health*, the composition of the atmosphere, and the part it bears in the formation of the blood,—the effects of bad air,—insufficient or improper food and drink,—the benefits arising from cleanliness in the skin, clothes, and dwellings,—and the consequences arising from bad water, and want of drainage, as illustrated by reference to the structure of the skin, lungs, and blood of the human frame, form the substance of the instruction given.

Natural history.

91. In *Natural History*, the adaptation of the parts and constitution of animals and vegetables to their habits, places of abode, and food, are taught in connection with the best known and most remarkable specimens in each kingdom; and suggestions are given as to the way in which these exhibit the wisdom and goodness of their great Creator. This part of the course is followed by another on classification; and the whole is concluded by bringing to the notice of the children the leading facts in animal and vegetable physiology.

Manufactures.

92. The *manufacture* of the articles in daily use by the children is brought forward in connection with the objects themselves. The lessons on the *philosophy of common things* explain the construction of a child's syringe; the common pump; fire engine; thermometer and barometer; the telescope and microscope; the steam-engine and its varied applications; the diving bell; balloons, and mariner's compass, and the principles on which their construction depends.

Laws of political economy.

93. The laws which regulate supply and demand, as illustrated by the varying prices of labour, and of the articles of food and clothing in daily use among the children; the nature and value of money, and its use in the operations of trade and commerce; the relations which labour and capital bear to each other; the ways in which rapid, safe, and cheap communication between the different parts of the same country, and the various nations of the earth, serve to

increase and cheapen the necessaries and comforts of life; how war not only destroys life and capital, but also does much to prevent the re-production of wealth: these, and such other lessons as may appear necessary to show the conditions of a nation's prosperity, together with the duties men have to sustain to each other and to the state, as masters, servants, or citizens, are explained and exemplified in the lessons on political economy.

SECT. 12.—CLASS TEACHING—DRAWING.

Lineal drawing on black board.

94. In the central school this exercise consists of the following course:—

(a.) Lineal drawing on slate or black board. The influence of lineal drawing in assisting to produce a good handwriting has long been noticed. Both tend to develop the faculty of form. This exercise is therefore given to the whole school, and consists, in the first place, of outlines of geometrical forms, accompanied by questions as to the length of lines and the size of figures, and the division of lines into halves and quarters. The text-book in this part of the course is Pickton's "Lineal Drawing." Afterwards, outlines of simple objects of furniture, flowers, and ornaments of various kinds are drawn. The teacher is furnished with a pair of compasses and a graduated ruler, and thus corrects the attempts of the pupils, when necessary, with perfect accuracy. Here, two objects are aimed at, (1.) the training of the eye; (2.) the training of the hand.

(b.) Botanical, animal, map, and general drawing, from copies and specimens.

Model drawing.

(c.) Model and object drawing, in which Butler Williams's course of model drawing is accompanied and followed by the delineation of objects, with illustrations of the main principles of perspective.

Design.

(d.) Design drawing, in which the children are put through a preliminary course of practice in combining straight and curved lines, into pleasing figures. They are afterwards taught to draw from plaster casts, and then encouraged to originate designs which may be useful for the purposes of ornament and manufacture.

Geometrical.

(e.) Geometrical drawing with instruments, intended to teach the pupils the construction of such problems as are most required among carpenters, masons, and handicraftsmen in general.

Architectural

(f.) Architectural and plan drawing, including the various parts of a common building, such as staircases, closets, &c., as well as the different styles and orders of architecture.

Lineal drawing is practised first with slate and pencil, then on black board with chalk, and afterwards on paper, in pencil and crayon.

SECT. 13.—CLASS TEACHING—VOCAL MUSIC.

95. The exercises on this subject consist of two divisions :—

Singing by ear

(a.) Singing by ear. Simple school and marching pieces are taught to the whole school. These are set to cheerful and instructive words, and serve to convey much useful information, as well as to recommend moral precepts in a pleasing manner. The practice of these simple pieces forms an agreeable change from the more difficult exercises of the school, and enlivens the changes from one study to another.

Singing by notes.

(b.) Singing from notes. Those children who show an aptitude for the study of vocal music are formed into three classes, and spend about three half-hours every week in the study and practice of this art.

How to give just ideas of music.

96. The *first* class is introduced to the subject by the teacher producing a sound with his own voice, and exemplifying the differences in length, pitch, and loudness; the children imitating at every step. After a few sounds have been thus taught, and the method of representing them with their pitch and length by *notes* on a *staff*, the pupils are

trained to produce any sound named by the teacher. He then practises them, by pointing to the different lines and spaces on the staff at random, and requiring the class to produce the sound thus indicated. The great object at this stage is to give the children an idea of *music* as distinct from the signs employed to represent it.

The next step consists of a selection from the sheet exercises contained in Hullah's system of vocal music, relieved by the occasional practice of easy school pieces, previously written out on the large music board.

Varieties of music in use.

97. The *second* class is introduced to the use of music books; two pupils singing from one copy. The music in use consists of selections from Crampton's school pieces, Curwen, Hickson, and the least difficult portions of Hullah's Part Music.

The *third* class is composed of the pupil teachers and a few of the most advanced among the children. The publications of Hullah and Novello are those chiefly in use.

The whole course is accompanied by the frequent use of *sol-fa-ing*, and as much of the theory of music as is necessary to render it intelligible and useful.

CHAPTER IV.

SCRIPTURAL INSTRUCTION.

Scripture the text book.

1. More importance is attached to scripture teaching in the daily occupation of the central school than to any other branch of instruction. It is believed that direct religious instruction and training must form the basis of every true system of education, and that the scriptures should be made the *text book* of that instruction and training. With this view a scripture collective lesson is given daily to the younger children, until they are able to read the book of scripture selections published by the Society. After this stage two scripture lessons are given in the gallery every week; and three-quarters of an hour on each of the other three days are employed in scripture reading.

Subjects of gallery lessons

2. The subjects of the gallery lessons from scripture are—its narratives; its parables and miracles; its doctrinal portions; the attributes of God; moral duties; and scriptural emblems and illustrations.

Bible geography, history, and biography, the government and public worship of the Jews, Jewish sects and customs, are taken up in the reading classes.

The general principle on which this division proceeds, is, that whenever it is the *chief* object to train the affections, and develop the moral nature, the collective lesson is the most effective instrument; while scripture reading in drafts (each child having an open copy of the Word of God in his hand), is most useful when matters of detail are concerned, or individual searching of the Bible is required.

Model sketches.

3. The same general principles should guide the teacher in giving the scripture lesson as have been already stated under the head "Collective Teaching;" a calm and quiet tone of voice, and a reverent manner, should be always preserved; and the teacher should not make statements, or draw conclusions, on his own authority, but continually refer to the Word of God.

The sketches of these lessons, however, differ materially from those on secular subjects. Two are given below, one on a narrative lesson, and one on an emblem lesson, as specimens of the two distinctive methods of preparing them.

SKETCH OF A SCRIPTURE NARRATIVE LESSON.

THE PRODIGAL SON.—LUKE XV. 11—24.

I. EXPLANATION.

v. 11. *He*—Jesus.

v. 12. *Portion of goods*—that part of his father's property which fell to his share. Explain eastern custom of dividing patrimony.

His living—his property; all that belonged to him.

v. 13. *Wasted his substance*—spent all he had.

Riotous living—feasting, gambling, &c.

v. 14. *Mighty famine*—great scarcity of food.

v. 15. *Feed swine*—disgraceful service; why?

v. 16. *Would fain*—wished very much.

v. 17. *Came to himself*—began to think in a proper manner about his evil ways. When was he out of his mind?

v. 18. *Heaven*—God, who is in heaven.

Before—against.

v. 19. *Worthy*—why not?

v. 20. *Had compassion*—was sorry for him.

v. 23. *Fatted calf*—always one ready; why?

v. 24. *Dead—lost.* The father looked upon his son as entirely lost; as much so as if he was dead.

II. Description.

(a.) What persons are mentioned?—what is said about *one* of them?—impatient of control, wishes to leave home, sells his goods, leaves home, perhaps with several servants and with much show and pomp—look at him as he goes along the road—tell me what you see—goes a great distance from home, why?—lives in splendour—bad companions.

(b.) When do we hear of him next?—what is he doing?—how came he there?—spent his money, bad companions will not help him—no food—tries to get work—has not learnt how to get his living—takes care of swine—how did he feel there?—what did he wish to do?—why?—what does he say?—where does he go?

(c.) Let us look at him as he returns—compare with his setting out from home, hungry, barefooted, ragged, humble—which was best state?—comes near home, sees some one at door, who is it?—feels afraid that his father will turn him away—hesitates—shall he go back—father sees him—what does he do?—(*Here bring out the scene at meeting.*)

III. Application.

1. Who meant by father?—by son?—by his wishing to leave home?—what meant by his going away?—spending his substance?—in a far country?—feeding swine?—returning?—father very kind to his returning son—God is kind to repenting sinners who seek his pardon.

2. What can *we* learn from this? We are sinners, what should we do? When these points are brought out, the teacher concludes with a *few* words of application to the children's own circumstances.

How the lesson was given.

4. The above is a sketch of a lesson given some time ago to a section of the school; it was intended to direct the attention of the pupil teacher to the *points* to be noticed, and to the *manner* of noticing them, as well as to the *order* in which they should be taken up. The children being seated in the gallery, and a few exercises gone through, for the purpose of fixing their attention, the master took up the Bible, announced the chapter and verse, and, after a few questions, began to read at the 11th verse. As the reading proceeded, the meaning of certain words was asked, and several questions were put for the purpose of exciting thought and preventing inattention. When the

reading was finished, the teacher closed the book, and commenced *the* "*Description;*" the object in this part of the lesson being to *vivify* the narrative, by means of graphic description, questions, and ellipses; so that the children might realize in their minds, *as a connected whole*, the various circumstances spoken of, and so the way be prepared for the lesson to be deduced. The "Application" was then *drawn from* the children, and the lesson was applied to their own case, and impressed upon their minds by two or three words of serious remark on the marvellous love of God to sinful man. It should be observed that the *sketch* lay on a table beside the teacher, but was only once referred to for a moment or two during the course of the lesson.

SKETCH OF A SCRIPTURE EMBLEM LESSON.

PROVERBS xvii. 14.

"*The beginning of strife is as when one letteth out water; therefore leave off contention before it be meddled with.*"

I. THE FIGURE.
II. THE MEANING.
III. THE APPLICATION.

I. THE FIGURE.

(a.) Who has seen a piece of water in motion? What is its name? *The Thames.** Tell us what you saw on it. *Boats, ships, packets.* What moves them along? *Steam, wind, oars.* Yes; but some were moved along——*By the water.* The water, then, moves——*with great force.* Who could stop it? Still less able to do so near the sea. Where does this river rise? How do you think it appears there? *Narrow, shallow, has little power.* There you might easily control it or turn it aside.

(b.) There is a noted river in North America, which falls down a precipice with great force, what is it called? *Niagara.* For some time it flows on peacefully and quietly, then it begins to move more quickly; why? It goes on moving quicker and quicker; at length it comes to a precipice; what happens to it then? *It tumbles down with very great force and noise.* Suppose any one tried to stop or turn it? *He would be carried away, and dashed to pieces.* Yes, it carries down boats, ships, anything that comes in its way (*tell anecdote of persons carried away by it*).

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* Words in Italics signify answers given by the pupils.

(c.) Allude to the tragedy of Holmfirth; repeat the circumstance. Before the water burst out, the reservoirs could easily have been made to keep it in; but they were neglected. In the dead of the night the water burst out; it rushes on, carries away houses, men, women, and children, trees, everything in its way. Destroys much property, and many lives; but all this might have been easily hindered by keeping the water in its basin.

(d.) What country is it that the sea is kept from overflowing by means of dykes or banks? *Holland.* Sometimes these dykes give way; sea rushes over the land, destroys people, crops, houses, everything in its way. Once a little boy was walking beside one of these dykes, saw the sea oozing through a little hole in it, put his finger in, and stopped it, until help arrived. What would have happened had not the hole been stopped? But all this was very easily prevented by stopping the sea out at first.

II. The Meaning.

Repeat the verse. What is likened to water "let out?" Explain strife. Quarrelling; trying who shall be master. ' Speak of nations striving; England and France; thousands killed, money wasted, misery and death brought on both nations. Imagine one of the battles; thousands of soldiers on each side, with swords, bayonets, cannons; they rush at each other; then hundreds lie dead on the field; hundreds groaning with wounds. Mothers are left without husbands, children without fathers, sisters without brothers, what misery and death are caused! How could this have been prevented? *By a few kind words at first; by not beginning to quarrel.* Bring out consequences of individuals quarrelling. Hatred for life, fighting, frequently murder; easily prevented by a little kindness at the beginning.

III. Application.

What can we learn from all this? What does the verse say? "*Therefore leave off,*" *&c.* Apply to children's own conduct towards each other. Boys playing, disagree, call names, perhaps fight, injure and sometimes kill each other. Show how much better to avoid beginning to quarrel. No good, but great harm arises from quarrelling. Now, children, let me have a few more verses on this subject. Those children who know any raise their hands. (*Teacher,* *pointing to one*) You give us one, if you please. "*Hatred stirreth up strife, but love covereth all sins.*" What, then, is the cause of strife? *Hatred.* If, then, we do not wish to quarrel, what is to be done? *Keep from hating one another;—love one another.* It is an honour for a man to cease from strife. Those, then, who keep from quarrelling are——*The best, the most honourable. Where there is no talebearer the strife ceaseth.* We should, therefore——*Not tell tales*, or *speak evil one of another.*

Give another passage. "*An angry man stirreth up strife.*" We should therefore avoid——*Being angry.* Now let us have, in a few words, what we have learnt in this lesson. *Strife or quarrelling is easily stopped in the beginning.* But leads to much misery if——*We go on with it.* And because——What leads to quarrelling? *Hating one another: speaking evil, and telling idle tales; anger.* Therefore we should love each other; keep from evil speaking, and from——*Anger.* Name one who set us an example in these things. *Jesus Christ.* Mention an instance. *When he was reviled, he reviled not again.* Another. *When he was beaten and spit upon, he answered not a word.* Again. *He prayed for his enemies on the cross.* Yes; and he tells us to——*Love one another, even as I have loved you.*

These scripture collective lessons should never be given by the pupil teacher or monitors, intended as they are to enlighten the judgment and draw out the affections of the children. No one should attempt to give them who does not himself in some degree feel the power of the truths they teach.

An interrogative lesson.

5. The following may be taken as a specimen of ***an interrogative*** lesson.

LOWER CLASS.

"*Seek ye the Lord while he may be found, call ye upon him while he is near.*"

Teacher. "Who are to seek?"
Pupil. "All men."
Teacher. "Whom are we to seek?"
Pupil. "The Lord."
Teacher. "When are we to seek the Lord?"

Pupil. "While he may be found."

Teacher. "Whom are we to call upon?"

Pupil. "Upon Him."

Teacher. "While who is near?"

Pupil. "He."

Teacher. "Who is meant by He?"

Pupil. "The Lord."

Teacher. "What is meant by seek?"

Pupil. "Inquire after."

Teacher. "How are we to call on the Lord?"

Pupil. "In faith."

Teacher. "What name is given to the act of calling on the Lord?"

Pupil. "Prayer."

The advantages derived even from this first step are considerable. The children are habituated to search for sense in all they read; they are taught to analyze each sentence; and they gain much scriptural information. Nor is the facility which they acquire of expressing their ideas a matter of small importance. To give a correct or clear definition, clear conceptions of the subject are essential, and clear conceptions cannot be obtained without attention and reflection.

HIGHER CLASS.

"*If thine enemy hunger, feed him; if he thirst, give him drink: for in so doing thou shalt heap coals of fire on his head.*"

Teacher. "What are we to do if our enemy hunger?"

Pupil. "Feed him."

Teacher. "What are we to do if our enemy thirst?"

Pupil. "Give him drink."

Teacher. "What shall we do by giving food and drink to an enemy?"

Pupil. "Heap coals of fire on his head."

The teacher, in addition to such questions as these, would ask, "What is meant by 'enemy?'* 'hunger?' 'coals of fire?'"

Mode of questioning.

6. When the teacher has ascertained that the facts or history of the passage, and the words occurring in it, are understood, the questioning should be still further carried out, to develop the general bearing; to explain the etymology of the principal words; to adduce collateral passages; and especially to enforce the application. Thus,

Teacher. "Why are we to feed our enemy?"

Pupil. "Because the scriptures command it."

Teacher. "Give me another passage which proves it."

Pupil. "Be not overcome of evil."

Teacher. "Give me another."

Pupil. "Love your enemies; bless them that curse you; do good to them that hate you."

Teacher. "What is meant by heaping coals of fire on the head of an enemy?"

Pupil. "Melting or softening him by kindness."

Teacher. "Give me some proof that this is the meaning."

Pupil. "Because, if taken in the other sense, it is doing him an injury, which is contrary to the scriptures."

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* The teacher should always endeavour to let the scriptures be their own interpreter. To remove any misconception, he should lead the class to other passages in which the word or phrase occurs. Suppose that the draft is not able to give a suitable answer to the question, "What is an enemy?" The master or teacher should say, "Give me another passage in which the word enemy occurs." They would probably cite the one in the parable, "The enemy that sowed them is the devil." And he would ask again, "What did the enemy there?" *P.* "He sowed tares among the wheat."—*T.* "Did he get any wheat by sowing the tares there?" *P.* No!"—*T.* "For what purpose did he sow them?" *P.* "To injure the man."—*T.* "What name, then, is given to one who tries to injure another?" *P.* "An enemy." The object is frequently obtained by simply referring to the etymology of the word. Thus the teacher would say, "*Enemy* is derived from *amicus*, a friend, and *in*, not. An enemy, then, is one who is ——" *P.* "Not a friend."

Teacher. "Prove this by some passage of scripture."

Pupil. "In the parallel passage (Prov. xxv.) it is added, that 'For this the Lord shall reward thee.'" Another replies, "Overcome evil with good." And another adds, "If thou meet thine enemy's ox, or his ass, going astray, thou shalt surely bring it back to him again."

Teacher. "Show how kindness to an enemy has this melting or softening tendency."

Pupil. "A soft answer turneth away wrath;" or another, using his own words, might reply, "David spared Saul in the cave, when Saul was seeking his life; and when David called after him, and he knew what kindness David had shown him, he said, Is this thy voice, my son David? and Saul lifted up his voice and wept." And another might make such a remark as this, which would be accepted: "When we do wrong to any one else, and they do good to us in return, we are ashamed of having hurt them."

Teacher. "To whom, then, is this command addressed?"

Pupil. "To all."

Teacher. "Do all men obey it?"

Pupil. "No."

Teacher. "Why do they not?"

Pupil. "Because the heart of man is evil."

Teacher. "What, then, is one mark of an evil mind?"

Pupil. "An unforgiving spirit."

Teacher. "What of a spiritual?"

Pupil. "A spirit of love."

Teacher. "To which of these does kindness to an enemy belong?"

Pupil. "To the spiritual mind."

Teacher. "Whom should we try to resemble?"

Pupil. "Christ."

Teacher. "Who are spoken of in the scriptures as enemies to God?"

Pupil. "All men."

Teacher. "How has God treated us?"

Pupil. "Loved us while we were enemies."

Teacher. "What may we learn from this?"

Pupil. "That if God so loved us, we ought also to love one another."

Teacher. "To what extent are we to love one another?"

Pupil. "As ourselves."

Teacher. "What is the first lesson we may learn from this subject?"

Pupil. "That if our enemy be in our power, we are to repay his hatred with love."

Teacher. "What other lesson?"

Pupil. "That our efforts must be directed to remove this hatred, and that we should pray to God to change his heart."

Teacher. "What other lesson?"

Pupil. "That of the goods of which God has made us stewards, we are to be ready to dispense when the distribution will be productive of good."

It would not be convenient or judicious to carry out questions to this extent upon every sentence read, but it is hoped that no regularly initiated teacher will either find difficulty or feel a disinclination to make its style and spirit his daily practice in the higher classes.

In addition to this mode of interrogation, it is also useful to allow the boys to question each other occasionally, beginning at the last boy, and allowing the questioner to take precedence of all not able to answer his question.

GIRLS' SCHOOL.

INDUSTRIAL DEPARTMENT.

NEEDLEWORK.

GIRLS' SCHOOL.

NEEDLEWORK.

1. As the arrangements, discipline, and methods of teaching employed in the girls' school are identical with those pursued in that for boys, it would be a mere waste of paper to recapitulate statements or directions already sufficiently clear and minute.

Modifications needful.

Certain variations in the time table, necessary in order to make room for the acquisition of an art so indispensably necessary to girls as that of needlework, will have to be made; but these will suggest themselves to every intelligent teacher, and will be modified by the peculiar circumstances of each school.

It is therefore only necessary to add, for the guidance of female teachers, that the following classification in methods of teaching needlework has for many years been adopted at the Girls' Model School, and has been found to work very advantageously.

Classification.

2. When the scholars are employed at needlework, they are seated at desks, and arranged in classes, according to their proficiency. The first, or lowest class, is seated farthest from the platform, and the others in numerical order before. The number of classes depends on the different kinds of work taught in the school, as each kind constitutes a class. The number in general use is eleven.

Monitors, how selected.

3. From the higher classes the best workers are selected for monitors; two are appointed for each class; one instructs

for one week, whilst the other is at work under the direction of her monitor; consequently each superintends the class, and works alternately; and each monitor continues at the same desk, until she is appointed monitor to a higher class. Every girl continues to sit at the same desk while she remains in the section. There are also two monitors, who alternately superintend and work one week. But all the monitors of classes, and the girls under their care, are under the superintendence of a pupil teacher appointed for the purpose. Every Friday the girls are allowed to bring their own work.

Brown holland bags.

4. The children in the higher classes are provided with lap-bags, made of brown holland; these are marked 1, 2, 3, &c., for as many as the desk contains. The number of the desk is also marked upon them; thus, $\frac{5}{8}$ signifies that the bag belongs to the fifth girl in the eighth desk.

Other necessaries.

5. Before the children take their seats, the bags are placed by the platform monitor on the class monitors' desks, and by them given to their girls. The class-work, and all garments in hand, are collected by the class monitors, and placed on the ends of the desks, ready for the platform monitor to deliver to the mistress. The monitor of each desk is furnished with a pair of scissors, thread-paper, needle-case, and a bag large enough to contain all the implements that belong to her desk. They are also supplied with a few thimbles and needles, for which they are responsible to the platform monitor. The children use coloured cotton for the class-work, as it renders the stitches more conspicuous, and consequently facilitates general inspection; it also excites an interest, as the promise of a choice of some pretty colour is a strong inducement to a child to perform her work neatly.

Seats taken in order.

6. A quarter of an hour before the time devoted to needlework, the business of the school is stopped by a given signal, and the girls are sent to their seats by an exercise suited to the arrangement of the schoolroom. Each

monitor then takes her position at the desk, and at a given sign distributes the work to her class.

Distribution of material.

7. A signal is now given for the monitors to distribute the bags, after which they return to their seats, and another signal is given for each girl to tie her own bag; a signal is again given, for the monitors to examine their girls' hands, to see if they are clean, and that each is provided with a needle and thimble. The platform monitor now supplies the class monitors with any additional work they may require for their girls, which the class monitors give out, also a needleful of cotton to each girl, and then return to their seats. A command is now given for the whole school to show work; that is, to hold it up in their left hand, to see that each is furnished with work. The bell is then rung, each child holds down her work, and immediately begins; and the monitors pass down the desks to instruct them. When a child wants work, she holds up her left hand, as an intimation to her monitor, who steps forward and supplies her. If a monitor wants a fresh supply, she makes a like signal to the platform monitor. When a girl wants thread, she holds up her right hand, and her monitor supplies her. While the children are at their work the teacher should pass through the classes to examine it, and at the close of the time allotted to this exercise reward those who merit it, and detain any girls who have been inattentive to do a certain portion of work after.

Bags collected at close.

8. The bell rings for the girls to show work, and the monitors to pass down the desks, and collect the needles and thimbles. An order is then given for the children to put the class-work into the bags; and the monitors to collect all articles in hand, and deliver them to the platform monitor, who takes them to the platform. The monitors then take their seats. The order is now given to untie bags, when each child unties her own; a second order is given, to take them off; and a third, to fold them up. Each child folds her own neatly, with the

number in view, places it on the desk before her, and puts her hands behind her. The bell then rings for the monitors to collect bags, which they do, placing them one on the other, in order; they then put them neatly into the bag belonging to their desk; also their scissors, thread-papers, needles, and thimbles. The monitors are then ordered to the platform, with their bags, where they deliver them to the platform monitor; they then return to their seats, and the report of the good and inattentive girls is read *aloud*. When this exercise is concluded the children are exercised out of their seats, and either resume their studies or are dismissed, according to the time the needlework is conducted.

First class, hemming; paper used.

9. The First Class contains two divisions, and is employed in HEMMING. (See No. 1.)* Girls who have not learned to fix a hem are placed in the first division, and taught on waste paper, it being less expensive than linen or cotton, and answers the purpose as well. The monitor of this division is furnished with slips of paper, about two inches wide, and five long, by the platform monitor, at the time appointed for her to supply all the monitors. When the command is given for the monitors to give out work, the monitor of this division gives a slip of paper to each child; and when the general order is given to begin work, the monitor passes down her desk, and directs each child to take her paper in her left hand, and place the end she is going to turn down between the thumb and first finger; then to confine it between the thumb and the first finger of the right hand, while she turns it down once quite even, to turn it again the same width; then to turn the paper round, and fix the opposite end, exactly in the same way; and then the sides: and to take care to fix the corners neatly. When each child has finished one paper, the monitor gives the command, "Show papers;" she then passes down her desk, and inspects them. Those girls who have not fixed them

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* Specimens of Needlework numbered thus are sold at the Depository, neatly done up in portfolios. Price 3s. 6d. the set.

correctly, she supplies with another paper; and those who have, are promoted to the second division.

Hemming on calico.

10. In the second division, the children are taught to hem. (See No. 2.) They are furnished with pieces of calico, about the size of the slips of paper. The monitor then instructs them on which finger they are to wear their thimble, how to hold their needle, how to point it, and to work in the end of thread neatly; how to point it to go on hemming; how to take the stitches; what to do with the thread when it is nearly used, and how to finish the corners; what to observe in hemming fine muslin, and before hemming a sleeve-gusset. When the children can hem their specimens tolerably well, they may practise on towels, sheets, or any other coarse hemming that may be in the school. After these, they are supplied with a small piece of muslin, which they hem with finer cotton, and they preserve as their best specimen of this class-work.

Second class, fixing seam o paper.

11. The Second Class is taught sewing and felling, and running and felling. This class also contains two divisions; the first of girls who have learned to hem only, from the first division, in which they are taught to fix a double seam on paper. Two pieces of paper, about the size of specimen (No. 3), are placed on the desk before each child, after which the monitor says, "Fix papers," giving them the following directions: to turn one of the papers down once, the other once on the right side, and turned back again the same width; to pin them together, as for sewing, and show papers. The monitor then passes down her desk, and inspects each girl's paper. Those who have fixed them well, are advanced to the next division; and those who have not, proceed as directed. To prevent waste, the monitor may cut the turns until the papers are too narrow for further use.

Sewing and felling on calico.

12. The girls in the second division are supplied with two pieces of calico, the size of specimen (No. 4), which they are taught to sew and fell. The monitor first directs

them to fix the seam as they did on their papers; when this is done, she instructs them how to hold their work for sewing, how to begin, how to take the stitches, how to draw the thread, what to do with the thread when it is nearly used, how to begin with a fresh needleful, how to flatten the seam before it is felled, how to point the needle to begin to fell, and how to point the needle to go on felling. When sewing the body of a shirt,—how much to leave for the arm-holes, how much for the flaps; when sewing the sleeves, how much to leave at the wrist. She then supplies them with two pieces of calico for running and felling, and directs them to see that the edges are quite even, then to lay the raw edge of one piece down *once*, and place the other piece upon it, two or three threads *below* the top, and run them together seven or eight threads below the turning. If the material be stout, to put the needle back two threads about every third stitch, and to take care in felling the seam that it be perfectly smooth on the right side.

Third class, drawing threads.

13. The Third Class is engaged in drawing threads, and stitching. The girls of this class are furnished with pieces of calico about three and a half inches long, and about one and a half wide, when doubled. On this they are taught drawing threads, and stitching. For practice, they stitch several rows on each piece, which are to be kept at equal distances, and they are to be stitched in pairs, as they can then be used in the gathering class, to fix on the gathers. After a child has stitched a pair tolerably well, as an encouragement, she may have any pretty bright coloured cotton she chooses, to stitch a pair quite true; and in order that she may keep them perfectly clean, her monitor supplies her with a small piece of paper, in which a hole has been purposely cut; this the child places on her work, and confining it down with her thumb and second finger, stitches in the space which the hole leaves, moving the paper when requisite.

14. The monitor of this class teaches her girls the rules for stitching, where to begin, how to prevent the end of the thread being seen on the wrong side of the wristband, and which side to hold next to them while they sow the ends. When a girl has finished her best specimen of this class-work, she is qualified to stitch the collars, wristbands, &c., of fine shirts, and may practise on them a short time, previously to her being removed to the fourth class. (See No. 5.)

Rules for stitching.

15. The Fourth Class gather and fix gathers. In this class, each child is supplied with a pair of wristbands (which may be the work performed by herself in the preceding class) and a piece of calico, the width about three lengths of the wristband, the length three inches. After the sides of the gathering piece are neatly hemmed, the monitor directs her girls how to mark the quarters; at what distance from the edge to crease the line along which it is to be gathered; in gathering, how many threads to take up, and how many to leave; the method of stroking them down, how to mark the quarters of the wristband, and fix it on, which way to point the needle in setting on each gather, and what to observe in fixing and setting on the wrong side. (See No. 6.)

Fourth class, fixing gathers

16. The Fifth Class make button-holes. The children in this class are first supplied with small pieces of paper, on which they are taught to cut the holes exactly to the size of the monitor's pattern; after which they hold them up for her inspection, and if she finds them cut correctly, she furnishes them with pieces of calico, which when doubled form a square (or the wristbands from the stitching class), and after they have cut the holes even to a thread, she teaches them how to hold it, where to begin, how to work in the end, how to form the loop, at what distance to take the stitches, and how to turn the corners neatly. As soon as they can work a tolerable button-hole on calico, they are allowed a small piece of fine linen, and any

Fifth class, button-holes.

coloured cotton they prefer, to work a perfect specimen. (See No. 7.)

Sixth class, making buttons.

17. The Sixth Class are employed in making buttons, and sewing them on. Each child in this class is supplied with small square patterns, cut out of pasteboard or old cards, according to the size of the wires they are going to cover, leaving a little beyond the edge to turn over, and a piece of calico. The monitor then instructs them to cut the calico exactly to the size and shape of the pattern; shows them how to place the wire on the calico, turn over the four corners, and close in the sides; which way to point the needle in stitching round the wire, and where to begin the dots or star, so as to continue them exactly in the centre of the button. When the buttons are completed, the monitor directs them to observe the rule for stitching them on firmly. Having acquired the method of making the buttons, and sewing them on, for further practice they may be allowed a small piece of cambric muslin, and a little fine white cotton, to make a set of the best, which may be used for children's caps, frocks, &c. (See No. 8.)

Seventh class, herringbone.

18. The Seventh Class learn the herringbone stitch. The children are taught this stitch on calico, or linen, as it is easier to them to acquire it on this, than on flannel, in consequence of the threads being clearer; for practice, they herringbone about three rows, which are to be kept at equal distances, by drawing a thread; each row exactly the same size, and every stitch true to a thread. Having thus learned the stitch,—to prove to them the use of it, the monitor gives to each child two small pieces of flannel, which she first teaches them to sew together; then to herringbone the seam on each side; and, lastly, the whole piece round. (See Specimens 9 and 10.)

Eighth class, darning.

19. The Eighth Class are engaged in darning. This is *first* taught on pieces of canvass about three inches square; they may be hemmed round, or a border worked in the marking stitch; the monitor then directs them to trace ten

threads beyond the *ground* of the darn; (which is formed by passing the needle *over* as many threads as will serve for the proposed size of the darn;) when an equal number of threads have been left each way, she directs them to cross it with a different colour, that it may appear more distinctly.

When a child has completed one of these darns, she is furnished with a piece of old stocking for further exercise. (See No. 11.)

Ninth class, tucks and whipping.

20. The Ninth Class are employed in making tucks, and whipping. The children of this class are supplied with small pieces of cambric muslin, on which they are taught to run tucks at equal distances, and, in order that they may fix their tucks correctly, they are furnished with a piece of card the exact width from the edge of the specimen to the edge of the tuck. The card should be a square, to prevent any possible mistake. The monitor then directs them where to make the first fold; the depth to turn down the double edge, how to crease a line for a guide in running, how to begin, and how to fasten off. When the tucks are completed, the monitor furnishes her girls with a narrow breadth of muslin for a frill; she then instructs them how to mark the quarters, how far to roll the muslin from the edge, which side to put the needle in to begin, how to take the stitches, where to leave out the thread, how much to draw at a time, how to fix the quarters of the frill to the quarters of the specimen, which to hold next to them in sewing it on, how to point the needle, and how much to take up in each stitch. No. 12 is the specimen finished.

Tenth class, marking.

21. The Tenth Class learn marking. In this class each child is furnished with a piece of canvass, the quality of that used for the darns, which they hem round. The monitor then directs them to make a straight round in the true stitch, four threads from the hem, by showing them how to put in the needle, how many threads to take each way, where to leave the end of the cotton to be worked in with the two next stitches, and how to fasten off. When

the row is finished, they work the capital and small letters of the alphabet, and the figures from one up to ten, having a pattern before them, to show them the regular distances. The first sampler is marked with coloured cotton; the second is composed of finer materials, as Specimen No. 13. Canvass being much easier to mark than linen, they are next supplied with a small piece of Irish for practice.

Finishing class.

22. The last class is called the Finishing Class. As it is highly desirable that the children, as soon as they have learned to work, should be employed in something useful, this class comprises those girls who have passed through the preceding classes, and are here engaged in making and completing garments. The children in this class are taught economy in purchasing, cutting out, and repairing various articles of wearing apparel: they are made acquainted with the waste occasioned by the want of proper consideration and exactness in domestic arrangements, and the miseries frequently produced by mismanagement and inattention. In order to impress upon their minds this useful branch of female instruction, they are interrogated in various ways on the common concerns of life. When the teacher proposes a question, she waits until each child in the class has had an opportunity of returning an answer, according to the knowledge she possesses. She then comments upon each of these answers in a way that will enable the *children* to decide which is the most suitable. To assist the teachers in these exercises, they are furnished with a few examples of questions and answers, which they may carry out to a much greater extent. These are inserted here under the head of questions for the finishing class or elder girls.

QUESTIONS FOR THE FINISHING CLASS.

Q. What is first required of you in this class?

A. To be quick in observing how all work is cut out, fixed, and finished off; to have clean hands, suitable needles, pins, and scissors.

Q. What more?

A. To inspect every part of each garment I make; to see that all bobbins, tapes, and buttons, be well secured, corners neatly overcast, tacking-threads drawn out, and ends cut off.

Q. In marking?

A. To be very particular in placing the letters and figures according to order, to observe the utmost regularity as to the threads, and mark in the *true* stitch.

Q. In mending?

A. To be sure to put the pieces on very straight, and allow them large enough to extend over the *thin* part. In prints or damask to be very particular to place the pattern to match.

Q. On which side do you sew a patch?

A. On the right side.

Q. How do you finish it?

A. I turn the garment, and cut out the worn part, leaving sufficient to form the fell, then nick it a little at the four corners, and turn it in flat and smooth.

Q. What should be done to stiff calico and linen before it is made up?

A. Washed.

Q. Why?

A. Because it can be more easily and neatly done, and will therefore prove more durable.

Q. When is it more desirable to purchase two articles of the same kind than one?

A. When I can save by cutting out two at one time.

Q. Give me an example.

A. If I were going to purchase cloth for one chemise, I must get two breadths my length, but if I bought three breadths it would make me two, a breadth and a half being sufficient for one.

Q. Can you tell me any rules by which you may judge of the quality of Irish and calicoes ?

A. An even thread, good selvage, and very little dress in it.

Q. In purchasing prints, why are neat colours preferred ?

A. Because they generally wash well.

Q. In cutting out all flannel garments, what should you allow for ?

A. Shrinking, unless it be first washed.

ON CUTTING OUT MENS' SHIRTS.

Q. How many shirts can you cut out from a piece of cloth measuring twenty-six yards in length ?

A. Nearly eight.

Q. If you were going to purchase cloth for one shirt, what quantity should you ask for ?

A. Three yards and a half.

Q. Of what width ?

A. Seven-eighths.

Q. What is seven-eighths ?

A. Seven half-quarters, or half-a-quarter less than a yard.

Q. How much would you purchase for three shirts ?

A. Ten yards and a quarter.

Q. Why ?

A. Because in cutting three, I can save a quarter of a yard of cloth.

Q. What length should you cut the body ?

A. About one yard and a nail.

Q. What should be the length and breadth of the sleeves ?

A. Five-eighths long and half a breadth wide.

Q. What size are the sleeve-gussets ?

A. About three nails square.

Q. The neck-gussets ?

A. About two nails.

Q. The side-gussets?

A. One nail.

Q. The little gussets for the wrists and the bosom?

A. About one inch square.

Q. What length is the collar?

A. About seventeen inches.

Q. The wristbands?

A. Generally half the length of the collar.

Q. The shoulder-straps?

A. A quarter of a yard.

Q. The binders?

A. Eleven nails.

Q. How many pieces have I mentioned?

A. Nineteen.

Q. Are these all there are in a shirt?

A. Yes, all that are really useful.

Q. In making a shirt, what parts should be done first?

A. The stitching and button-holes.

Q. How do you prepare the body for sewing the side seam?

A. I fold it exactly in half; then measure five nails from the top for the arm-holes; and six from the bottom for the opening at the sides, put a pin in each, and sew the seams.

Q. What next?

A. I hem the flaps and put in the side-gussets.

Q. How do you fix in the side-gussets?

A. I sew in a quarter of an inch less than the square, on the wrong side of the shirt, and fell the other part neatly over it.

Q. What then?

A. I hem the bosom, and stitch in the little gusset.

Q. What is the length of the bosom?

A. Six nails.

Q. What next?

A. I fix the neck-gussets, taking care to put the part stitched on the right side.

Q. How do you fix the shoulder-strap?

A. I fold it exactly in half, and tack the wrong side slightly on the middle of the shoulder; then place each side flat on the shirt, and stitch it in the lines which have been prepared for stitching, by drawing the threads.

Q. What next?

A. I fell the binders on.

Q. How do you make the sleeves?

A. I first measure half the length of the wristband for the openings at the wrist, then hem them, gather the sleeves, and put on the wristbands.

Q. What next?

A. I sew and fell one side of the gusset on the top part of the sleeve, then sew and fell the sleeve beginning at the bottom, and put in the little gussets at the wrists.

Q. What then?

A. I gather the top of the sleeves and put them in.

Q. What then?

A. I gather the neck, set on the collar, and sew on the buttons.

Q. Where do you mark it?

A. I hold the front of the shirt towards me, and mark it at the left side, about an inch from the side-gusset.

BOYS' SHIRTS.

Q. What length should you cut the body for a boy about seven years old?

A. Nine nails.

Q. Ten years old?

A. Eleven nails.

Q. Fourteen years old?

A. About fourteen nails.

Q. What width should you cut the first sized body?

A. Half a yard.

Q. The second size?

A. Ten nails.

Q. Third size ?

A. Twelve nails.

Q. What length the sleeves ?

A. The first size six nails, the second seven, and the third eight.

Q. What width the sleeves ?

A. The first size five nails, the second six, the third seven.

Q. What length the collars ?

A. The first size eleven inches, the second twelve, and the third fourteen.

Q. What width the collars ?

A. The first size seven inches, the second eight, the third ten.

Q. What length should you cut the wristbands ?

A. About half the length of the collars.

Q. What length the binders ?

A. The first size seven nails, the second eight, and the third nine.

Q. The width of the binders ?

A. The first and second size three inches, and the third size four inches.

Q. What should be the length of the shoulderstrap ?

A. The first size six inches, the second seven, the third eight.

Q. What size the sleeve-gussets ?

A. The three sizes from four to five inches square.

Q. The neck and side gussets ?

A. From three to four inches square.

Q. What size should the little gussets at the bosom and wrists be ?

A. About one inch square.

Q. What length the bosom ?

A. The first size eight inches, the second nine, the third ten.

QUESTIONS ON CUTTING OUT CHEMISES.

Q. How many ways are there of cutting out chemises ?

A. Five.

Q. What is the first ?

A. Sew five breadths together, and then fold them backward and forward into three equal parts, arrange the width of the gores, and cut them diagonally.

Q. What is the second plan ?

A. Sew a breadth and a half of cloth together like a bag, and tack the two seams together; then double the whole width of the chemise, so that when folded the one part will be narrow and the other wide (the narrow part may be ten inches and the wide seventeen), then do the same at the opposite direction and measure each; that they be exactly even, crease a line and cut it diagonally the whole length of the chemise.

Q. What is the third way ?

A. Take two breadths of seven-eighths cloth and double them exactly in half down the middle, and take off a gore four inches wide at the top and slope it one half the length of the chemise to a point, and sew these gores on the bottom of the chemise.

Q. What is the fourth way ?

A. From two breadths of seven-eighths wide cloth, take off a gore the whole length of the chemise. The gore to be twelve inches at the bottom, and four at the top.

Q. What is the fifth plan ?

A. Take one breadth of seven-eighths the length required and divide it into two half breadths; then take the whole breadth and double it down the middle, and cut it into gores four inches wide at the top, twelve at the bottom (one gore will be *whole* up the side), and sew them on each side the half breadths.

Q. What are the general lengths of women's chemises ?

A. From a yard and three nails to a yard and six nails.

Q. For girls from nine to thirteen?

A. From seven-eighths to a yard and three nails.

Q. How much cloth or calico should you put into the width of the girls' shifts?

A. From a breadth and a third to a breadth and a half, and gore them in proportion to the size.

Q. In cutting the bosom, what length should you leave the shoulders?

A. From three to four inches.

Q. What depth the flaps?

A. From four to six inches.

FLANNEL PETTICOATS.

Q. What length should you cut a flannel petticoat for a child five years old?

A. From nine to twelve nails.

Q. What width?

A. A breadth and a half.

Q. What length for eight years old?

A. From twelve to fourteen nails.

Q. For twelve years old?

A. From fourteen to sixteen nails.

Q. What length for a woman?

A. From a yard to a yard and three nails.

Q. What width?

A. Two breadths and a half.

UPPER PETTICOAT.

Q. What is the most suitable material for upper petticoats?

A. Dark twill cotton or stuff.

Q. What length should you cut them for girls from eight to twelve years old?

A. About two inches longer than the lengths for the flannel petticoats.

Q. What width?

A. From two to three breadths, according to the age and size of the girl.

A BABY'S CAP.

Q. What quantity of muslin should you require for six caps the foundling shape?

A. Half a yard of yard-and-a-half-wide muslin will allow three in the width and two in the length.

Q. Will there be any left?

A. Yes, a small piece in the width, which will make the chin-stay and slips to fell on the wrong side of the gathers.

Q. How much muslin will make the six borders?

A. Three nails of yard-and-a-half-wide.

Q. How do you make the cap?

A. I first hem the front wide enough to admit a narrow bobbin; then fix the tucks to the size of the card, and run them.

Q. What next?

A. Sew and fell the back; set in the gathers; and stitch it about thirteen threads below the gathers; then fell the narrow slip of muslin on the wrong side.

Q. What next?

A. I hem the back; make the border, and sew it on; work the eyelet-holes, and run in the bobbin.

KNITTING CLASS.

Knitting class.

23. The children in this class are furnished with a set of knitting needles, and a small ball of worsted, or cotton; the monitor then begins to teach them to cast on the stitches, and they may practise, by first knitting small cuffs or bags; if the *latter*, she directs them to cast about twenty-four stitches on three needles, and knit them with the fourth.

To cast an additional stitch on one needle to form the seam; when they begin the seam to *turn* a stitch every second round at the *middle* of the needle. To form a turn stitch, she directs them to bring the worsted in between the two needles, with which they knit, so as to be next them, and put the needle into the loop on the right-hand side, instead of the left; then to put the worsted round it, and turn the stitch back *from* them, and return the thread to its usual place. To narrow the bag, she directs them to knit two stitches into one after every six in the first round of narrowing, then to knit six rows in the usual way, to narrow again by knitting two stitches into one after every five stitches round; then knit five rows, and narrow at every four stitches, and so on until about ten stitches are left: then to close it by placing the needles together, and take a loop off each, and knit them together, and cast the first loop over the last, between every two they join, until all are knit off, and one loop only remains. Then slip the worsted through the loop, and with a darning needle pass the worsted to the wrong side, and fasten it firmly off. When the children have acquired a tolerable knowledge of the management of the needles, and understand turning, narrowing, and closing, they may be taught to knit socks, stockings, and night-caps.

Previously to their commencing these, the following questions may be put to them :—

QUESTIONS FOR THE KNITTING CLASS.

Q. How do you knit the first round of a stocking?

A. Plain stitches.

Q. How many rounds do you rib ?

A. From eight to twelve.

Q. How are the ribs formed ?

A. By knitting three or four stitches plain, then the same number turned.

Q. When do you begin to seam?

A. Two or three rounds after the ribs.

Q. How should the worsted be joined?

A. Reverse the ends of the worsted upon each other, and knit five or six stitches with the worsted double.

Q. If a stitch drops, how is it to be taken up?

A. With the right-hand needle put it on the left, then take up the loop, put it on the left needle, and cast the stitch over it.

Q. How long should a stocking be before narrowing?

A. Twice the width of the top, therefore knit as many rounds as there are stitches on the needles.

Q. How is the calf to be formed?

A. By narrowing on each side the seam.

Q. At what distance do you narrow from the seam?

A. The second stitch.

Q. How frequent are the narrowings?

A. Every five rounds.

Q. How much should a stocking be reduced for the ankle?

A. One third for a full-sized; for a child's not quite so much.

Q. What length should the ankle be after the narrowings?

A. One half of the width.

Q. How do you begin the heel?

A. By dividing the stitches in half on two needles,—one for the instep, the other for the heel.

Q. In what part should the seam be left?

A. In the middle of the heel.

Q. How should the heel be knitted?

A. In rows backward and forward. Every other row must be turnstitched.

Q. What form should the heel be before it is closed?

A. Square.

Q. How many times do you narrow the heel?

A. Five or six on each side of the seam.

Q. How is the heel closed?

A. Divide the stitches at the seam, half on each needle, place them together, take the seam stitch first, knit the other loops two together, cast the first loop over the last; between every two you join until all are knitted off, and one loop only remains.

Q. How do you begin the foot?

A. By taking up the loops at each side of the heel.

Q. When do you begin to widen?

A. In knitting the second round, widen every third stitch.

Q. Where, and how often do you narrow the instep?

A. At the heel sides every second round, until the foot is the same width as the ankle.

Q. What length should the foot be?

A. From the taking up of the loops at the heel to the narrowing of the toe, should be as long as the width at the top of the stocking.

Q. How do you narrow for the toe?

A. At the beginning and end of every needle, leaving five rounds plain between the first, then four, then three, two rounds twice, one plain round three or four times, and then every round until all are off.

A SCALE OF SIZES FOR STOCKINGS.

	SIZES.				
	1	2	3	4	5
On each needle............	34,34, 35	40,40, 41	44,44, 45	48,48, 49	54,54, 55
Rounds before narrowing	96	113	125	127	155
Narrowing in the leg......	12	16	19	21	24
Stitches after narrowing..	73	38	91	99	111
Number of rounds from narrowing to heel	39	44	47	51	57
Stitches for heel............	39	45	47	51	57
Stitches for instep	40	44	48	52	58
Rows in the heel	40	44	48	52	58
Stitches taken up on each side the heel	22	24	26	28	31
Stitches widened............	13	14	15	16	17
Total on each instep needle	31	34	37	40	44
Narrowing each instep ...	14	14	16	17	18
Rounds from taking up the loop at the heel to the narrowing at the toe	40	58	64	70	79

All the proportions in this table are for worsted, and rather small needles.

(*For Specimen of the* GIRLS' SCHOOL REGISTER, *see Appendix.*)

APPENDIX.

I.—TIME TABLE—MODEL SCHOOL.

II.—EXPLANATIONS OF SCHOOL CHANGES.

III.—REGISTER AND REPORT BOOKS.

IV.—QUESTIONS TO TEST A SCHOOL.

APPENDIX I.—TIME TABLE—MODEL SCHOOL.

Hours.	Division.	Section.	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.
9 o'clock.	A portion of Scripture read by the Master.—Children inspected.—Names called.						
9¼ to 9¾	Gallery. Writing. Class.	1 2 3	Scripture Reading. Written Arithmetic. Scripture Reading.	Scripture Reading. Written Arithmetic. Scripture Reading.	Scripture Lesson. Writing in Books. Written Arithmetic.	Scripture Reading. Written Arithmetic. Scripture Reading.	Scripture Lesson. Writing in Books. Written Arithmetic (*Crossley's*).
9¾ to 10½	Gallery. Writing. Class.	3 1 2	Map Geography. Grammar. Scripture Reading.	English History. Written Arithmetic. Scripture Reading.	Scripture Lesson. Writing in Books. Written Arithmetic.	Map Geography. Written Arithmetic. Scripture Reading.	Scripture Lesson. Writing in Books. Written Arithmetic (*Crossley's*).
10½ to 11¼	Gallery. Writing. Class.	2 3 1	Map Geography. Lineal Drawing. Written Arithmetic.	English History. Written Arithmetic. Mental Arithmetic.	Scripture Lesson. Writing in Books. Written Arithmetic.	Map Geography. Written Arithmetic. Grammar.	Scripture Lesson. Writing in Books. Written Arithmetic (*Crossley's*).
11¼ to 12	Gallery. Writing. Class.	1 2 3	Map Geography. Mental Arithmetic. Written Arithmetic.	English History. Geog. of England. Mental Arithmetic.	Natural History. Grammar. Mental Arithmetic.	Map Geography. Mental Arithmetic. Grammar.	Object Lesson and Manufactures. Grammar Grammar } (*Allen and Cornwell's*).
2 to 2¾	Gallery. Writing. Class.	3 2 1	Composition. Writing in Books. Reading Daily Lesson Books.	PhysicalGeography. Writing in Books. Reading Lesson Books and Poetry.	Natural Philosophy. Composition (*Cornwell's*) Analysis of yesterday's Reading Lesson.	Etymology. Writing in Books. Reading Daily Lesson Books.	Object Lesson and Manufactures. Map Drawing—England. Geography of England.
2¾ to 3½	Gallery. Writing. Class.	1 3 2	Composition. Writing in Books. Reading Daily Lesson Books.	PhysicalGeography. Writing in Books. Reading Daily Lesson Books & Poetry.	Mental Arithmetic. Composition (*Cornwell's*) Analysis of yesterday's Reading Lesson.	Etymology. Writing in Books. Reading Daily Lesson Books.	Analysis of Reading Lesson. Map Drawing—England. Analysis of Reading Lesson.
3½ to 4¼	Gallery. Writing. Class.	2 1 3	Composition. Writing in Books. Reading Daily Lesson Books.	PhysicalGeography. Writing in Books. Reading Lesson Books and Poetry.	Natural History. Composition (*Cornwell's*) Analysis of yesterday's Reading Lesson.	Etymology. Writing in Books. Reading Daily Lesson Books.	Object Lesson and Manufactures. Map Drawing—England. Analysis of Reading Lesson.
4¼ to 5	Gallery. Writing. Class.	Whole School.	DICTATION.—SPELLING AND SINGING FROM NOTES.				{ This exercise omitted during the short days of Winter.

The Examination of Tables takes place during Arithmetic.—Examination of Texts during Scripture Reading.—Examination of Home Lessons on Spelling, Poetry, &c., during Secular Reading Lesson.—Written Home Lessons taken and examined after Books are given out for Writing.—Late boys' names marked the first time the Section is in the Class Division.

TIME TABLE.

EXPLANATION OF THE PRECEDING.

BOYS' SCHOOL.

The foregoing time table is that used in the boys' upper school. Precisely the same general arrangements are followed in the lower school, but the subjects taught are more elementary in their character, and are introductory to those studies in the upper school. The general principle on which the two schemes of employment have been drawn up is, to make the exercise of the perceptive faculties of the children on familiar subjects, the principal point in the lower school; while reflection, reason, judgment, and memory, are made the chief objects of the training carried on in the more advanced department.

Another principle kept in view has been to make quiet exercises in one part of the schoolroom accompany those which are necessarily more noisy in other parts, so as to reduce, as far as possible, the noise inseparable from the active working of a large school, and especially to provide for reverent and orderly attention to the Scripture collective lessons.

Referring to the time table, the first vertical column indicates the time when each exercise *begins;* the second refers to the division of the school in which the respective studies are carried on; in the third column the figure 1 includes the A, D, and G sections (see p. 127), these being respectively the first of the three sections in each of the three *longitudinal* portions of the school, and consequently studying in the *same* part of the school at the *same* time. The figure 2, in like manner, includes the second in each portion, or the B, E, and H sections; and the 3 the C, F, and K sections. This will be easily understood on reference to the ground plan of the schoolroom on p. 127. The remaining columns show the days of the week on which each study is taken up.

In order to save trouble, and to show at one view the time devoted during each week to each subject of study, the following table is subjoined :—

TIME SPENT IN EACH STUDY PER WEEK.

		Times.	Hours.
1.	Scripture Reading, and Scripture Lesson	5	3¾
2.	Secular Reading—Prose and Poetry	5	3¾
3.	Writing	5	3¾
4.	Written Arithmetic	5	3¾
5.	Mental Arithmetic	2	1½
6.	Map Geography and Map Drawing	4	3
7.	Physical Geography	1	¾
8.	Grammar	2	1½
9.	Composition—Oral and Written	2	1½
10.	Etymology	1	¾
11.	Dictation, Spelling, Drawing, Singing, &c.	5	3¾
12.	English History	1	¾
13.	Object Lesson and Manufactures	1	¾
14.	Natural History	1	¾
	Total school time each week		30

Every lesson is appointed beforehand by the head master of the school, who also revises the sketch of every collective lesson previously to its being given to the children.

ON HOME LESSONS.

When the minds of the children are actively employed during the whole of their time in school, it is not judicious to tax their minds and bodies to any great extent in the evening, in the preparation of home lessons. Work that will occupy them about an hour to prepare, will, in most cases, be quite sufficient. Employed to this extent, home lessons are likely to interest the parents in the education of their young ones, and at the same time aid in preserving the children from the injurious operation of street influences; while to tax their powers to a much greater degree will have a tendency to awaken feelings of weariness and disgust. It should be specially borne in mind, that whatever home lesson is given, it should be carefully and regularly attended to on the child's return to school. This is a point of the utmost importance in connexion with this subject.

Among the subjects which may be given as exercises at home are the following:—

1. The Reading Lesson for the following day. The child may be told to bring, say, twelve words of a given number of syllables, selected from the reading lesson, and written out on slate or paper; these words should be written neatly and in column, divided into syllables by a hyphen or dash between each, and well committed to memory. Or he may write out a part of the lesson as an exercise in copying; this plan is a useful auxiliary in teaching spelling to the younger children. Or the pupil may be requested to search for and write down any additional information which he is able to collect on the subject of the lesson. At another time it may be his task to bring an abstract of the lesson he is next to read. Or if poetry be the subject, a portion of it may be given to him to learn by rote. In these ways, and in others continually occurring in the course of a teacher's daily practice, may the reading lesson be made a useful basis for home lessons.

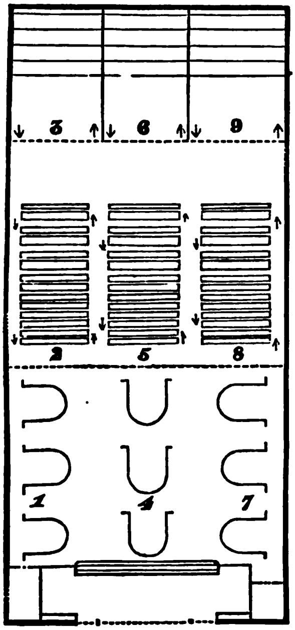
2. Arithmetic. After a lesson on the principles of a rule in arithmetic, a few questions for practice may be given to work at home. At the Central School, arithmetic is frequently given as a home lesson. A small portion of the tables should form a part of every evening's lesson.

3. Grammar, Geography, History, Scripture. These subjects should be taught *principally* by means of collective lessons, but it will be found very much to assist the progress of the children, if either before or after each lesson, a home exercise is given on the subject of it; in the former case, the home lesson will be a useful preparation for the lesson on the gallery; in the latter it may be so framed as to become a test of what has been learned in school. Thus in grammar, the definitions, tables of pronouns and verbs, parsing and analysis of sentences; and in geography, the definitions, lists of mountains, rivers, countries, towns, &c., should be learnt out of school.

In English History, the different dynasties that have reigned, the monarchs belonging to each, the remarkable persons and events in each reign or in each dynasty, the dates, &c., if committed to memory apart from the collective lessons, will serve to give point and efficacy to the instructions of the teacher when he seeks to trace the changes and the growth of our constitution, and the history of our people. In Scripture, the passage on which the lesson will be based may be previously learnt; those parts also which require an exercise of the memory, either before or after the collective lesson or bible-reading, may profitably serve as home exercises.

APPENDIX II.

EXPLANATION OF SCHOOL CHANGES.



Let the outline of the annexed figure represent the walls of the large schoolroom of the Society, divided into three parts by curtains represented in the figure by dotted lines; these curtains to be raised or lowered at pleasure. It is evident that either moveable or fixed partitions, with glass in front, might be substituted for the curtains, if that were thought advisable. The room is thus separated into three divisions, each containing three sections of fifty children each, named respectively the gallery division, writing division, and class division. In the class room the backs of the children are turned to the platform, so that their attention may not be distracted by the entrance of parents and visitors, and by the teacher's work on the platform. The wall may thus also be used for illustrations, diagrams, &c., when lined with black board or slate, and the classes present a neater and more uniform appearance.

The school is, in this manner, divided into nine sections of forty-five children each; the three on the left hand side called, respectively, the A, B, and C sections; the three occupying the middle of the schoolroom, the D, E, and F: and those on the right, the G, H, and K sections.

Let us now confine our attention, for a short time, to the three sections on the left of the schoolroom, which may be considered as a separate schoolroom by itself, as the movements of the children who compose this division of the school are confined to that longitudinal section of the large room which is on the left side. In like manner the children of each of the other similar divisions, viz., that along the right hand, and that which stretches from one end to the other up the centre of the school, go through the whole of their day's employment without moving from right to left; according to the nature of their duties, they pass to the gallery, to the desks, or to the classes, *i.e.*, they move along the length of the schoolroom, but never from side to side.

The children, on entering, proceed at once to their places; the A section to the gallery marked 3, in the diagram; the B section to the desks marked 2, and the C section to the classes (1). The three hours, from 9 to 12, are divided into four portions of three-quarters of an hour each; one of which is devoted to religious, and the remaining three to the different branches of secular, instruction.

It now remains to explain the changes of the sections, from one division to the other. Let us suppose the children to take their stations, as above described, at 9 o'clock in the morning. At a quarter to 10 "Halt!" is called, or a bell is rung, and at the word of command the curtains are drawn up and the classes fall back to a line drawn for that purpose on the floor. At understood signals, the "writers" and gallery children leave their seats and turn in the direction in which they are required to march (this direction is indicated by arrows in the plan). The superintendent counts or beats one, two, three, four, to indicate the time to which they are to move; the children step lightly, desk by desk, from their places, softly singing some cheerful school song, the section C proceeding up the left side of the second passage to the gallery (3), the B section down the left to the class division (1), and the A section also down the left to the writing division (2); book are then given out, black-boards arranged, curtains let down, and all again begin. This is repeated every three-quarters of an hour. The middle and right side of the room are occupied in the same manner, and change their places at the same time.

Slightly different commands are necessary in preparing for and conducting the various changes, according to the studies carried on in the different divisions of the school. An example is given of one of these changes, from a careful study of which the necessary variations will easily be supplied. Let it be supposed that the pupils are arranged as follows:—

Gallery,—Scripture Reading.
Desks,—Written Arithmetic.
Drafts,—Scripture Reading.

Before commencing the exercises, which in the Central School are the first on Monday morning, the superintendent says, —"Give out bibles in gallery and drafts and slates in the desks." When this is done,—"Prepare curtains;" the curtains are got ready to be let down. "Down;"—"Again;"—"Down:" at each of these commands the curtains are let down one-third of the distance to the floor. "Begin:" the work of the school commences.

At the end of the exercise he gives the following commands:— "Halt:" all are quiet. "Close books;" "Show books;" "Collect books." "Clean:" the children prepare for cleaning slates. "Slates:" the slates are cleaned.

He now says, "First draft form:" here the first draft in each section in the draft division forms on a line drawn on the schoolroom floor, opposite the passage up which these children will move to the gallery. "Second draft form;" "Third draft form;" "Boys in the desks look:" the superintendent holds up his hand; he gives it a slight but rapid movement to the left; the children turn in the same direction. "Out;" they spring from their desks, and stand in order fronting the platform, and those in the gallery rise. "Whole school—turn;" "Lead off:" here the pupils move to their respective places, as before described.

When writing on paper has been going on in the desks, the command, "Finish lines," is given five minutes before "Halt!" is called, so that the pens may be cleaned and collected, and the books examined, before the *change* commences.

"Halt!" may be either spoken or *signified* by a clap of the hands, the ringing of a small bell, or the sounding of a whistle. The other commands may also be made by signs, if this be thought preferable.

CURTAINS.

It ought to be very distinctly understood that a schoolroom should never be partitioned off by curtains, or any other method, unless the teacher possesses one or two efficient and responsible assistants. In purely monitorial schools such an arrangement will only furnish a screen for idleness, and may prove rather mischievous than otherwise. Class-rooms have for the same reason been found of very little service in schools of this character. Wherever the master has no assistants on whom he can rely, it is absolutely necessary that all the business of the school should go on under his immediate observation, and therefore in one undivided room.

Object.—The purpose contemplated by dividing the school into sections by means of curtains, is, of course, to prevent that wandering of eye and of thought which is caused by the employment of several classes within sight of each other. Every teacher must have noticed that the more isolated his class is from the rest of the school, the more effectually he can teach. It is undoubtedly desirable that the *sound* of work in other sections should be excluded, as well as the *view* of it; but the latter is of more importance. The use of a thick curtain answers the latter purpose completely, although the noise arising from other sections is not wholly shut out by it.

Advantages.—There are many portions of the routine of a school which require that the children should all be brought together under one eye. A complete separation of the room into sections, such as might be effected by fixed partitions, though desirable at some parts of the day, and for the purposes already described, would prove very inconvenient at the morning and evening reading of the Scriptures, at the time for singing, and generally whenever the whole school required to be treated or addressed collectively. The main advantage possessed by curtains over wooden or other permanent partitions is, that they can be readily withdrawn; and that thus the same room may combine the character of a large hall, which may readily be placed under the supervision of one person, and a number of isolated class-rooms for the purpose of special instruction.

Material.—The best which has been tried at present is watered moreen. This may be bought good at about 1s. 1d. per yard by the piece, which generally contains about twenty-four yards.

Colour.—Dark drab is very commonly used in boys' schools, as it does not show the dust. But it has an unpleasing and somewhat dirty appearance, and spoils the look of a room. A rather dark emerald green is preferable for two reasons: it is a colour which is cool and agreeable to the eye, and it forms a good contrast to the walls, which are generally white or stone colour; the dust, however, is more readily seen, but this may be removed by the frequent use of a stiff brush.

How made.—The curtains should be made by an upholstress.

The length from top to bottom should be about four yards. The number of widths in a curtain will depend, of course, on the width of the room. The seams are "run" and "felled," a hem made at the top three inches wide, through which is passed a rod; this rod secures the curtain to the beam across the room. The hem at the bottom is five inches wide, and lined with brown holland to give it strength. Through this is passed a smooth and rather heavy slip of wood, to give a weight to the curtains when down. The sides of the curtains should be secured with binding of the same colour as the rest.

How supported.—By a beam or bar of painted iron passed from one side of the room to the other. This beam is sustained by iron rods brought through the roof and strongly secured on the outside; the ironwork requires to be manufactured expressly for the purpose.

How drawn.—At rather more than a foot from each side of the curtain, and from top to bottom, should be stitched a piece of the binding (this must be done on the *wrong* side). On this binding, at the distance of a foot and a half from each other, should be sewed brass rings; through these from the bottom to the top (and secured by a knot at the lowest ring) a rope is passed, which is cast over a pulley fastened to the beam directly over the rings. The two cords are then passed through one pulley attached to the wall of the schoolroom. By this means the curtains can be drawn up with great ease, so as to hang in festoons. They should be raised and lowered one-third of the height at a time, at signals given by the teacher. It is usual to call out the numbers "one, two, three;" or in some other way to mark distinctly the moment at which each movement should take place. When they are raised or lowered suddenly, the children standing by are in some danger of being hurt.

APPENDIX III.

REGISTER OF CANDIDATES FOR ADMISSION.

Date of Application.		No.	Name.	Residence.	Age.	Religious Denomination	Parents' Occupation.	Classes.		Date of Admission.
								Rg.	Ac.	
Jan. 6, 1851	χ	1	Bond, William	6, Princes-st., London-road	7	Church	Bricklayer	1	—	Feb. 19, 1851.
Ditto	χ	2	Abrey, James	3, John-street, Borough	9	Catholic	Orphan	7	4	Ditto.
Jan. 13, 1851	χ	3	Arnold, John	7, Long-alley, Mint-street	6	Sunday School	Labourer	3	—	Ditto.
Ditto	√	4	Pearse, Thomas	1, Garden-row, King-street	10	Independent	Smith	—	—	Removed.
Ditto	χ	5	Adams, John	6, Kent-street, Borough	8	Church	Carpenter	6	1	Feb. 26, 1851.
Ditto	χ	6	Cohen, Moses	14, Mint-street, Borough	6	Jew	Glass-cutter	4	—	Ditto.
Jan. 20, 1851		7	Sawyer, William	12, Duke-st., Westminster-road	9	Baptist	Coachman	—	—	
Ditto		8	Turner, Charles	3, Bear-lane, Tooley-street	8	Sunday School	Orphan	—	—	
Ditto		9	East, James	5, George-st., Lambeth-road	7	Methodist	Painter	—	—	
Ditto		10	Johnson, Wm.	6, Short-gardens, Milk-street	9	Unitarian	Shoemaker	—	—	

The entries under the seven first heads are made when parents apply to have their children admitted; the three last on the day of admission. The mark √, at the first space, denotes that a "Vacancy Paper" has been sent to the parents; the line crossing it shows that the name and particulars have been transferred to the School Register.

In small schools, or where the school is not full, this Register is unnecessary.

ALPHABETICAL OR SCHOOL REGISTER.

No.	Name.	Residence.	Religious Denomination	Date of Admission.	Reading Classes.						Arithmetical Classes.										Date of leaving	Remarks.	A
					1	2	3	4	5	6	1	2	3	4	5	6	7	8	9	10			
2	Abrey, James	3, John-street, Borough	Catholic	Feb. 19, 1851										$\frac{2}{21}$	$\frac{3}{21}$								
3	Arnold, John	7, Long-alley, Mint-street	Sunday School	Ditto			$\frac{2}{21}$	$\frac{3}{21}$														Removed too far.	
5	Adams, John	6, Kent-street, Borough	Church	Feb. 26, 1851						$\frac{2}{21}$	$\frac{2}{21}$										Mar. 6, 1851		

The five first entries are copies from the Register of Candidates. The fractional entries record the time of entering the particular class under which the fraction is written. Thus, James Abrey is qualified, on entering the school, for the 7th reading class and 4th arithmetic class, and was promoted to the 5th arithmetic class in March, 1851, marked $\frac{3}{21}$.

ATTENDANCE REGISTER.

First Class.			February.																March.			
No.	Names.	Residence.	7	8	9	10	11	14	15	16	17	18	21	22	23	24	25	28	1	2	3	4
1	Jones, W.	1, Lant-street, Borough	×	×	/	×	×															
2	Carr, T.	92, Borough-road	×	×	×	×	×															
3	Smith, F.	8, Kennington-lane	×		×	×	×															
4	Morgan, S.	5, Lambeth-row	×	×	×	×	×															
5	Williams, J.	11, Trinity-street, Borough	×	\	×	×	×															
6	Tomkins, R.	5, Long-lane, Bermondsey	×	×	×	×	×															
7	Felix, I.	83, Union-street, Borough	×	×	×	/	×															
8	Evans, H.	107, Walworth-road	×	×	×	×	×															
9	Walker, L.	14, Earl-street, London-road	×	×	×	×	/															
10	Hart, K.	20, Kent-street, Borough	×	×	×	×																

The oblique lines denote the attendance of the children; a blank indicates absence.

REGISTER OF SCHOOL FEES.

Names.	Residence.	F Section.												
		Folio in Entrance Book.	January.				February.				March.			
			10	17	24	31	7	14	21	28	7	14	21	28
Adams, I.	8, East-street, Walworth	7	3	3	3	3								
Atkins, S.	17, London-road	16	3		6	3								
Arnold, W.	19, Grange-road, Bermondsey	5		6	3	3								
Brown, F.	5, Long-lane "	21	3	3	3	3								
Bevan, I.	21, High-street, Borough	13	3	3	3									
Blomfield, R.	16, Park-street, Bankside	12	3	3	3	3								
Baxter, T.	4, Friar-street, Blackfriars-road	19	3		6	3								
Collins, M.	2, Crown-place, Walworth	26	3	3	3	3								
Cole, A.	5, Spa-road, Bermondsey	14	3	3	3	3								
Dunkin, W.	15, Deveril-street, Dover-road	18	3	3	3	3								

The figures in the second and following columns denote the weekly payments of the children in the Upper School; where 6d. marked it stands for two weeks' money. A similar register is kept for the Lower School.

REPORT OF DAILY ATTENDANCE.

Morning.	Present.	Absent	Total.	Afternoon.	Present.	Absent	Total.
February 1	136	10	146	1 Class	142	4	146
— 2	140	7	147	2 —	138	9	147
— 3	137	10	147	3 —	141	6	147
— 4	141	6	147	4 —	136	11	147
— 5	139	8	147	5 —	137	10	147
Average	138⅗			Average...	138⅘		

This is a summary of the draft lists reports, and is obtained by counting the whole number of names on the various divisions of each class, the whole number marked present, and subtracting the difference. A copy of the absentee notice is sent to the parent of each child who is absent without leave. If the irregularity be often repeated, the parent is sent for and admonished.

REPORT OF ATTENDANCE ON RELIGIOUS WORSHIP ON SUNDAYS.

Sunday.	Church.	Chapel and Meeting.	Sunday School.	Absent.	Total present.
1 Class	2	1	3		6
2 —	4	6	7	1	18
3 —	4	4	18		26
4 —	12	8	20		40
5 —					
6 —					
Date					

It is essential to any child's continuance in the school that his parents or guardians see that he attends regularly, every sabbath-day, a place of worship or Sunday school. To record their attendance is the object of this report. The parent of each defaulter is seen, and admonished; if the omission be often repeated, the child is excluded.

GIRLS' SCHOOL REGISTER.

Date.	No.	Name.	Residence.	Age.	Parents' Occupation.	Religious Denomination.	Classes.						Date of leaving.	Remarks.
							R.	W.	A.	R.	W.	A.		
Jan., 1853.	1	E. Carr	13, Francis-street	7	Painter	Church	3	1	1	5	6	3	June 16, 1853.	Left ill health.
	2	E. Brown	20, Joiner's-street	9	Tailor	Ditto	5	1	—	7	6	7		
	3	A. Harvey	35, Valentine-place	13	Clerk	Ditto	6	4	3	8	9	8		
	4	M. Wood	57, Borough-road	8	Cabinet maker	Baptist	3	1	—	7	6	7		
	5	L. Thorn	7, James-terrace	12	Cheesemonger	Ditto	6	4	4	8	9	8		
	6	F. Prentice	22, Belwer-street	13	Grocer	Ditto	7	5	5	8	10	11		
	7	F. Steel	22, Wellington-place	14	Engineer	Church	7	6	6	8	10	11		

The figures in the first three columns record the classes the children are placed in on entering the school. The last three show the progress made during their stay in the school. Thus: E. Carr is qualified on entering the school for the 3rd reading, 1st working class, 1st arithmetic class, and was promoted to the 5th reading class and 6th working class during the period of six months, when she left in ill health.

APPENDIX IV.

QUESTIONS TO TEST A SCHOOL.

THE following Questions have been drawn up for the use alike of committees and teachers. They indicate the points to which a teacher should direct his attention, and the course a committee should take in order to ascertain the condition of a school. The questions are supposed to be put to the teacher.

COLLECTIVE TEACHING.

Do you test the *efficiency* of your collective teaching by *individual questions?*

Do you sometimes require the elder boys to make a written *abstract* of their lesson? Is this looked over with a view to the spelling among other things?

Do you make use of *ellipses?* the *number* varying inversely as the age of the child?

Do your collective lessons to the *younger* boys relate to the various familiar objects, utensils, and operations *about* them? Are those to the elder boys given *systematically? i.e.*, is each lesson part of a system of knowledge?

Is your collective teaching especially characterized by *simplicity* both of language and illustration, and by *animation?*[*]

In using numbers, do you make them intelligible by referring them to *known standards? e.g.*, If you were stating that some trees are near 300 feet high, would you say that they were twice, three or four times, as the case may be, as high as some well-known object?

INTERROGATION.

Do you, or your monitors, question on *every subject* taught?

Do you occasionally require *mutual* questioning on the part of the elder boys?

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[*] Many of the points suggested here are as important in connexion with other kinds of teaching as in collective; but as the evils of neglecting them would be increased in proportion to the number taught, it has been deemed advisable to throw them under this head.

Does your questioning include the *three* different stages? 1. Before reading, in order to ascertain what your children know on the subject of the lesson, and to awaken their interest in it. 2. During reading, the explanation of such words or allusions as are necessary to *understanding* the lesson. 3. After the books are closed, with a view to *impressing* the *facts* of the lesson on the memory, explaining the *etymologies* of words, and the imparting such *incidental* information as is naturally associated with it.

READING.

Do you *define* and *limit* the portion to be read? Is the portion assigned of such *moderate length* as to allow of its being read three or four times?

Do your monitors question readily on the lessons that have been read?

Have you the *specimens*, *models*, or *diagrams*, that are necessary to illustrate such lessons?

Do you rest satisfied if one boy is reading in the draft, or do you see that *every child is attentive* while one is reading? Do you also forbid the monitor's approaching the boy who is reading, and require him always to stand where he has a view of the whole draft?

Do you pay attention to the *style* of reading, particularly with the elder boys?

Do you correct a bad style by having very familiar sentences read? By requiring the boys to tell you something, to write it down, and then to read it from *their own writing?*

Do you teach the *meanings* of words in connexion with the reading, as found *in sentences*, rather than with the *spelling*, in which the arrangement must be arbitrary?

Do you point out on the map all the places occurring in the lesson read?

Do the boys exhibit seriousness of manner when reading the Bible?

SPELLING.

Do you sometimes teach and test spelling by the *dictation* of sentences to be written?

Do the elder boys sometimes *copy* pieces of poetry and the exercises in grammar, with a view to improvement in spelling?

Do you have the more difficult words that occur in your collective lessons spelt?

WRITING.

Do you teach the principles of writing, and cause your children to practise them on slates, before writing in copybooks and in conjunction with it?

Are the books kept clean, free from blots, and without the corners being turned down?*

Do you furnish the boys with good copies, avoiding those which have improper contractions?

Have you a black board on which you write in chalk a copy for the lower boys who are unable to write?

ARITHMETIC.

Do you teach principles before rules?

Do you teach arithmetic by the black board? Have you one in each draft?

Do you, in teaching arithmetic, commence with, and constantly refer to, *sensible objects?*

Are the numbers in your *lower* classes always those of *little value?*

Do you invariably insist on every number being *read*, to ascertain whether its value is understood?

Do your monitors *question* at every step in the process of a sum? *e.g.*, Why do you carry only one when you borrow ten?

Are the *terms* and *marks* explained? *e.g.*, *What do £.* s. d. mean? Why is the Rule called *Compound* Subtraction? What are these marks used for?

Do you connect the book knowledge of the more advanced boys with the objects around them? *e.g.*, What is the quantity of timber in the trunk of a tree whose height and girth, both at the root and the part where it branches off, have been measured by themselves? The number of gallons the school water-butt will hold? The contents of a field, whose shape and size they have ascertained?

GRAMMAR AND COMPOSITION.

Do you introduce grammar by exercises on language?

Do you *explain* every definition, rule, &c., *before* allowing the boys to commit them to memory?

Do you make your boys understand that language determines grammar, and not grammar language? That the rules of grammar are only the recognised usages of language?

In explaining the etymologies of words, are you extremely careful to give the right *quantities* and *terminations* of the roots?

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* The books may be kept smooth by tying them up between two pieces of board

GEOGRAPHY.

Do you teach the *physical* features of any district first?

Do you make the boys acquainted with their *own neighbourhood* and *country* before attending to more distant parts?

Have you a map of the neighbourhood in the school?

In commencing geography, do you require the boys to make a map of the playground, or some well-known part? Do you explain latitude and longitude by a reference to this map?

Do you require the boys occasionally to point towards the place under consideration? *e.g.*, When Dublin has been pointed out on the map, do you say, *Now point to Dublin itself?*

DRAWING.

Do you commence with *chalk* drawing on the black board?

Are your monitors so proficient as to be able to *sketch off* any object illustrative of the lesson?

MONITORS.

Do you devote *half an hour a day* specially in the *training* of your monitors?

Is it your prime object in this training to give your monitors the *art of teaching*, and do you make the impartation of knowledge subservient to this?

Do you train every monitor in the *very lessons* he has to teach?

Do you require the same monitor to teach the *same lesson*, that he may be thoroughly competent to that lesson?

Have you a *double set* of monitors, that while one set is teaching the other is learning?

Do you, from time to time, add to your monitors' class, to act as *auxiliaries*, in the absence of the regular monitors, such boys as you think likely to be suited to the office?

Do you associate with the office of monitor as many *pleasing* circumstances as you can?

Do you pay them? Have they, as such, the use of the school library? Do you treat them with marked consideration? Do you occasionally accompany them in little excursions to places in your neighbourhood distinguished in history, or for beautiful scenery, or to museums, gardens, &c.?

Do you impress on your monitors that they should correct no mistake till they have ascertained that none of the boys in their draft can? Do you exemplify this in your own teaching?

DISCIPLINE.

Is order the *habit* of your school?

Have you perfect quietness amongst the children who are writing?

Do you *drill* your boys occasionally, with a view to securing habits of prompt obedience?

Do you have the movements to and from the desks made in an orderly way? Do you generally have the tables *repeated* or sung simultaneously at this time? Do you sometimes have the movements made with perfect quietness, as a means of discipline? Are all the exercises conducted as *quietly* as is consistent with the full development of the powers of the children?

Do you have all those subjects which depend for their improvement upon *practice*, such as reading, spelling, &c., taught *individually?*

Is every exercise conducted *under observation*, that the boys may feel that any inattention or disorder is certain of detection?

Have all the children at all times something to do, and a motive for doing it? *

Do you abstain from giving a second command till the *first* has been *obeyed?*

Do you abstain from *calling out*, except on quite necessary occasions?

In stopping or directing the whole school, do you give your commands so loud as to be heard by all, and *no louder?*

Are you *strict*, without being *severe?*

If you find the general discipline becoming at all lax, do you have those exercises which are most faulty gone through as you wish them, *after* the regular *school hours?*

HABITS OF THE SCHOOL.

Is your room *clean?*

Do you have it well *swept* and *dusted* every day?

Do you see all the school *furniture* put in its proper place before you leave the schoolroom?

Is your room well *ventilated?*

Do the boys exhibit *subdued and gentle manners* in their intercourse with each other?

Are the boys generally *clean* in their *persons* and *dress?*

Do you carefully prevent idling about the school, or in or near the gates, &c., or in the playground?

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* Joseph Lancaster.

Are your boys orderly, and *respectful* to their superiors?

Do you discourage *tale-telling*, except in reference to very serious faults?

CLASSIFICATION.

Do you keep your sections and drafts of about a *uniform size?*

Do you take care that children of the same draft are of about the same *attainments*, and those in the gallery during a collective lesson of the same *mental capacity?*

Have you the *form* of the drafts distinctly *marked* on the floor, by cutting into it, painting it, or letting a wire into it?

EXAMINATIONS.

Have you *stated periods of examination*, in order to the removal of the competent to higher classes?

Do the children *know* these *periods*, that they may work with a view to them?

Are the intervals between these periods of such *moderate length in a child's estimation*, as to influence his exertions?

Have the parents any means of knowing when their children are advanced?

Have you an evening examination, at least once a year, for the parents and friends of the children?

GENERAL.

Do you require every *error* to be *corrected* by the boy *making it*, after it has been corrected by another?

Is every matter *explained before* it is committed to memory?

Do you keep up your connexion with the *old scholars*, by occasional meetings, or in any other way? Are they allowed the use of the school library?

Do your children *love* you? Have you a strong *sympathy* for children, and pleasure in ther company?

Is your teaching *intellectual?* Do the children really *understand* what they are learning? Do you make every subject taught a means of *intellectual development?*

Do your children come to school *regularly* and in time?

Do you give time and attention to subjects according to their *relative importance? e.g.*, Reading above everything, the history and circumstances of your own town or locality in preference to more distant parts?

Do you rather aim at giving the boys a *good* acquaintance with a *few* subjects, than a very superficial acquaintance with many?

Are your exercises characterized by *little repeating* and *much questioning?*

Do you keep a *register* of the *attendance* of the children, and of their school *payments?*

Do you rest satisfied if you obtain an *answer* to a question *from one*, or do you repeat and remodel the question till the matter is *understood by all?* Do you impress this maxim upon your monitors *that all teaching is for the whole class?*